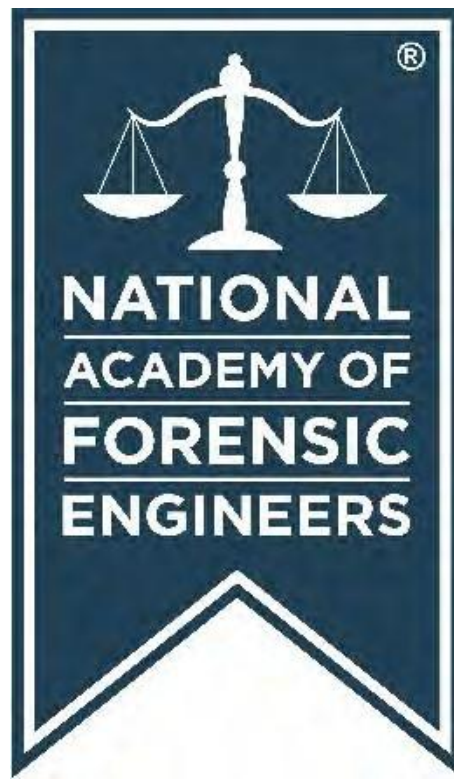


The National Academy of Forensic Engineers

Winter Conference 2025
Santa Fe, New Mexico



Board of Directors Book

January 17, 2025

2024-2025 Board of Directors

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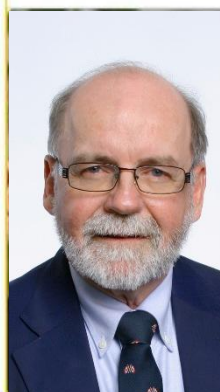
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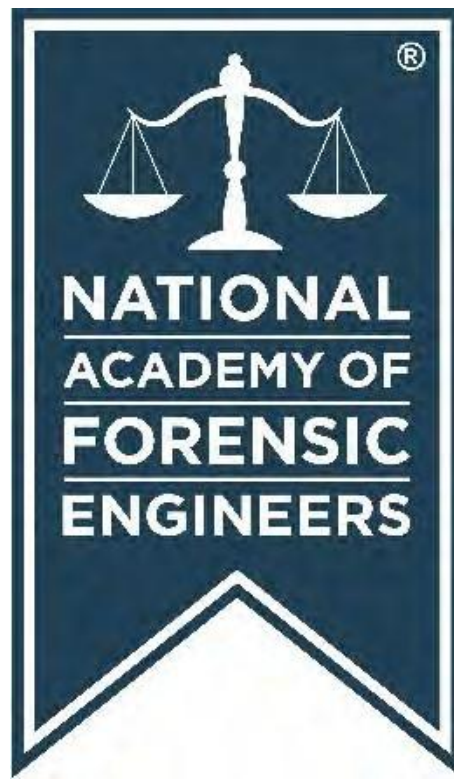
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BOARD ORIENTATION





NAFE Board of Directors Orientation

The Legal Responsibilities



NAFE Mission – What we do

- Serving the public by advancing the ethical and professional practice of forensic engineering;
- Serving the jurisprudential system by certifying individuals having achieved expertise in forensic engineering;
- Serving Academy members and furthering the development of forensic engineers through education and the publication of peer-reviewed technical literature.

Fundamental Legal Duties of Individual Board Member

Fundamental legal duties of each individual board member, which include:

- **Duty of Care** — Each board member has a legal responsibility to participate actively in making decisions on behalf of the organization and to exercise his or her best judgment while doing so.
- **Duty of Loyalty** — Each board member must put the interests of the organization before their personal and professional interests when acting on behalf of the organization in a decision-making capacity. The organization's needs come first.
- **Duty of Obedience** — Board members bear the legal responsibility of ensuring that the organization complies with the applicable federal, state, and local laws and adheres to its mission.
- Duty to avoid **Conflict of Interest**

Article VIII – Board Duties and Powers

- Section 2. Duties and Powers


- The Board shall have the control and management of the affairs of the Academy and, in addition to the powers and authorities expressly conferred upon them through these Bylaws, may exercise all such powers and do all such acts and things as are by law provided and as are usually done by the Board of a membership corporation,

including

- the right to establish committees and approve committee appointments,
- to allot to those committees such duties and powers as the Board may deem proper,
- to select the recipients who will benefit from the purposes and objectives of the Academy,
- to set fees for application and admission,
- to determine dues and assessments.
- The Board shall have final responsibility and authority for member discipline.
- The Board is vested with the authority to appoint an Executive Director or Executive Secretary and other officials.
- The Board shall annually determine the size and composition of the Board within the structure established in the Articles of Incorporation and fill Board vacancies as necessary.



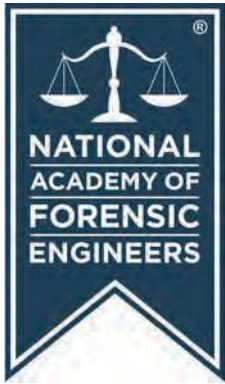
Governance Primer

- Remember to review Governance Primer
 - NAFE Governance Primer:
 - A Summary of Volunteer Leader Duties
- 

Your Board Experience

- Stay informed
- Be an engaged listener with an open mind
- Make decisions based on what is best for the association, not your personal preferences or interests
- Respect the Board's time
- Use common sense
- When in doubt ... ASK





NAFE Governance Primer:

A Summary of Volunteer Leader Duties

NAFE BOARD OF DIRECTORS

Association officers, directors, delegates, committee members, and others involved in an association’s governance are often uncertain of their roles and responsibilities. And for good reason — some rights and obligations are determined by law, others by the association’s articles of incorporation and bylaws, and still others by written policies and procedures or more informal arrangements.

The following brief is designed to clarify the delegation of duties; explain the fiduciary duties imposed by law on association officers, directors, and delegates; and suggest ways to protect volunteer leaders from personal liability.

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Roles and Responsibilities

NAFE Board of Directors

The NAFE Board of Directors (the “Board”) is the governing body of the NAFE (the “association”), responsible for the ultimate direction of the management of the organization’s affairs. The Board is responsible for policymaking, while employees (and to a certain extent, officers) are responsible for executing day-to-day management to implement Board-made policy. However, the ultimate legal responsibility for the actions (and inactions) of the association rests ultimately with the Board. The Board can act legally only by consensus (majority vote of a quorum in most cases) and only at a duly constituted and conducted meeting, or by unanimous written consent.

The Board may delegate authority to act on its behalf to others such as committees, but, in such cases, the Board is still legally responsible for any actions taken by the committees or persons to whom it delegates authority. An individual Board member has no individual management authority simply by virtue of being a member of the Board. However, the Board may delegate additional authority to a Board member, such as when it appoints Board members to committees. In a similar fashion, an officer has only the management authority specifically delegated in the bylaws or by the Board (although the delegated authority can be general and broad).

Committees

Committees have no management authority except for that delegated to them by the bylaws or by the Board. Furthermore, under most state nonprofit corporation laws, certain functions may not be delegated by the Board to committees. For example, in many states, the Board may not delegate to committees the power to elect officers, fill vacancies on the Board or any of its committees, amend the bylaws, or approve a plan of merger or dissolution.

Employees

Employees have no management authority except that specifically delegated to them in the bylaws or by the Board. For example, most associations’ bylaws delegate to the chief staff executive the responsibility for the day-to-day operations of the association’s office(s), including the responsibility to hire, train, supervise, coordinate, and terminate the professional staff of the association, as well as the responsibility for all staffing and salary administration within guidelines established by the Board.

Members

Members have no management authority, as such authority is held by the Board. However, some state nonprofit corporation laws generally reserve to members the right to remove officers and directors and to amend the association’s articles of incorporation, among other rights. Under some associations’ bylaws, certain matters, such as the amendment of the bylaws or the election of officers and directors, must be submitted to the membership for a vote. However, most other matters generally are not submitted to the full membership, but rather are handled by the Board, one or more of its committees, or the officers or employees of the association.

Legal Duties

Fiduciary Duty

Those in positions of responsibility and authority in the governance structure of an association — both volunteers who serve without compensation and employed staff — have a fiduciary duty to the organization, including duties of care, loyalty, and obedience. In short, this means they are required to act reasonably, prudently, and in the best interests of the organization, to avoid negligence and fraud, and to avoid conflicts of interest. In the event that the fiduciary

duties of care, loyalty, or obedience are breached, the individual breaching the duty is potentially liable to the association for any damages caused to the association as a result of the breach. This fiduciary duty is a duty to the association as a whole; even those who serve only on a particular committee or task force owe the fiduciary obligation to the entire association.

Duty of Care

This duty is very broad, requiring officers and directors to exercise ordinary and reasonable care in the performance of their duties as well as exhibit honesty and good faith. Officers and directors must act in a manner that they believe to be in the best interests of the association and with the same level of care, including reasonable inquiry, as an ordinarily prudent person in a like position would use under similar circumstances. The “business judgement rule” protects officers and directors from personal liability for actions made in poor judgment, as long as there is a reasonable basis to indicate that the action was undertaken with due care and in good faith. The duty of care also imposes an obligation to protect any confidential information obtained while serving the association.

Duty of Loyalty

This is a duty of faithfulness to the association. This means that officers and directors must give undivided allegiance to the association when making decisions affecting the association.

In other words, officers, directors and delegates cannot put personal interests, even the interests of any specific constituency they were elected or appointed to represent, above the interests of the association.

Personal interests may include outside business, professional, or financial interests; interests arising from involvement in other organizations; and the interests of family members, among others.

Officers and directors should be careful to disclose even potential conflicts of interest to the Board of directors, and should recuse themselves from deliberation and voting on matters in which they have personal interests. For pervasive and continuing conflicts — such as a director of the association concurrently serving on the Board of a competing association — resignation from the individual’s association leadership post or from the outside conflicting responsibility may be required. Officers and directors can have business dealings with the association, but such transactions must be subject to considerable scrutiny. In such event, officers and directors must fully disclose any personal interests to the Board of directors, and the terms of any transaction must be fair to the association. In addition, state nonprofit corporation statutes frequently provide specific procedures for dealing with transactions in which officers or directors have conflicts of interest.

Duty of Obedience

This duty requires officers and directors to act in accordance with the organization’s articles of incorporation, bylaws, and other governing documents, as well as all applicable laws and regulations.

Conflict of Interest

Beyond the general legal duties, the importance of avoiding actual and perceived conflicts of interest is well grounded in law. If anything, recent changes in the wake of the WorldCom, Enron and the 2008 Lehman Brothers bankruptcy and ensuing financial market collapse have placed even stricter standards of scrutiny on conflict of interest obligations. The Sarbanes-Oxley financial reform bill put additional enforcement provisions and higher penalties in place for violations of these standards. The IRS has intensified compliance and enforcement actions and adopted a zero-tolerance attitude towards conflicts of interest through changes in the annual tax filings that not-for-profit organizations like NAFE and its state associations must make.

Most people understand the most obvious forms of conflict of interest: where direct financial benefits are involved. It doesn’t take a law degree to know that it would be wrong for a director of the association to participate in a board decision that would financially benefit him or her directly. For example, if the association were considering a major asset purchase and you owned an interest in one of the company’s competing for that sale, you have a clear conflict of interest.

But there are other, more subtle conflicts that can from time to time arise, and volunteer leaders have a legal duty as well as an ethical obligation to be sensitive to them.

Duality of Interests

The reason this is such an issue is that none of us, as individuals, live lives so narrowly focused or categorically compartmentalized as to avoid constantly carrying a multiplicity of legitimate demands for our loyalty. We are, each of us, a bundle of different interests: we owe the same duty of loyalty not only to NAFE, but also potentially to other organizations in which we are involved. We have a duty of loyalty to our employer, to the community organizations we are involved in, to the church, school and civic boards we serve on. The list goes on and on. It would be unreasonable to expect any individual to divest him or herself of any outside interests other than NAFE before allowing them to serve and impossible for any of us to comply if such a demand were made of us.

The good news is that while we all must live in a constant state of duality of interests (simultaneous duties of loyalty to two or more organizations), it is a relatively rare event when those dualities of interest actually come into conflict. Your obligations to your employer will very seldom if ever come into conflict with your obligations as a volunteer to NAFE. Even less often will your obligations to a community or civic organization come in conflict with your obligations to NAFE.

But it can happen. So you need to be aware and highly sensitive to the possibility of some specific issue or topic or action suddenly implicating two legitimate interests that demand your loyalty. When that situation occurs, you have a duty to both organizations to immediately make leadership aware so that conflict can be appropriately addressed and resolved.

That point is important enough to restate:

- Legitimate dualities of interest exist for each of us ... obligations to more than one organization that may or may not ever create an actual conflict.
- A duality of interest becomes a conflict whenever a volunteer has a direct or indirect interest, financial or otherwise, in the outcome of a matter involving NAFE.
- Whenever that occurs, the volunteer has a legal and ethical obligation to both organizations to bring that actual or perceived conflict to light, so that it can be appropriately resolved.

Remember, having a conflict of interest is not evidence of some moral shortcoming or ethical failure on your part. However, failing to act promptly to make leadership aware of the conflict so it can be appropriately addressed is a serious violation of your legal and ethical duties.

Remedies

When an actual or perceived conflict occurs, there are three remedies:

Disclosure. In a few cases, the conflict is so minor that simply disclosing it (and recording that disclosure in the official minutes) might be sufficient. For example, if the board was considering a large equipment purchase and you or your spouse owned a small amount of stock (a non-voting interest) in one of the company's competing for the sale, the board might very well determine that your financial interest is so small and your degree of control so slight that simply recording the disclosure in the minutes is enough.

Recusal. In a vast majority of cases, a conflict of interest is resolved by recusal --- or simply removing yourself from participating in any of the discussions or actions taken by the board or committee in a specific matter. Whenever the matter in which you have a conflict is discussed (including in any circulation of information in advance of the meeting), you are excused from the deliberations and leave the meeting.

Resignation. In a few, very rare cases, a conflict will arise that is so fundamental, you must make a choice. If you cannot, in good faith, serve the two masters simultaneously, you must resign from the service of one or the other. Again, such situations are rare, but there may be instances where one entity to whom you owe a duty of loyalty demands something from you that you cannot honor without violating your duty to another. For example, if you serve on one board that, for legitimate reasons, demands that certain proprietary information be kept confidential, but

withholding that information would be damaging to another organization on whose board you serve, you cannot simultaneously honor both demands.

Who Decides?

One additional and very important point. The individual does not get to decide if a conflict exists or what an appropriate remedy would be. The board or other governing entity makes that call. Your duty, as an individual, is to fully and promptly disclose any actual or potential conflict and to abide by the collective decision of the board or committee as to its resolution.

Finally, it is important to remember that a board's action to cure a conflict of interest is not a reflection on your trustworthiness or character. It is not a question of whether you can be trusted to act in the best interests of the association ... the legal standard is whether a reasonable person, looking at the matter with no special or inside information, might reasonably find cause to doubt that the decision was made exclusively in the best interests of the association, uncolored by any outside or individual concerns, if you participated in it.

Additional Considerations

Corporate Opportunities Doctrine

The duty of loyalty specifically prohibits competition by an association officer or director with the association itself. While officers and directors generally may engage in the same "line of business" or areas of endeavor as the association, it must be done in good faith and without injury to the association. One form of competition that is not permitted, however, is appropriating "corporate opportunities." A corporate opportunity is a prospect, idea, or investment that is related to the association's activities or programs and that the individual knows, or should know, may be in the best interests of the association to accept or pursue. An association officer or director may take advantage of a corporate opportunity independently of the association only after it has been offered to, and rejected by, the association.

Reliance on Experts

Unless an officer or director has knowledge that makes reliance unwarranted, an officer or director, in performing his or her duties for the organization, may rely on written or oral information, opinions, reports, or statements prepared or presented by: (i) officers or employees of the association whom the officer or director believes in good faith to be reliable and competent in the matters presented; (ii) legal counsel, public accountants, or other persons as to matters which the officer or director believes in good faith to be within the person's professional or expert competence; or (iii) in the case of reliance by directors, a committee of the Board on which the director does not serve if the director believes in good faith that the committee merits confidence.

Willful Ignorance and Intentional Wrongdoing

Directors cannot remain willfully ignorant of the association's affairs. A director appointed as treasurer, for example, with limited knowledge of finance cannot simply rely on the representations and reports of staff or auditors that "all is well" with the association's finances. Moreover, officers and directors acting outside of or abusing their authority as officers and directors may be subject to personal liability arising from such actions. Furthermore, officers or directors who, in the course of the association's work, intentionally cause injury or damage to persons or property may be personally liable, even though the activity was carried out on the association's behalf.

Reducing Personal Liability Risk

Association officers and directors can help minimize their risk of personal liability by doing the following:

1. Being thoroughly and completely prepared before making decisions;
2. Becoming actively involved in deliberations during Board meetings, commenting as appropriate, and making inquiries and asking questions where prudent and when such a need is indicated by the circumstances;
3. Making decisions deliberately and without undue haste or pressure;
4. Insisting that meeting minutes accurately reflect the vote counts (including dissenting votes and abstentions) on actions taken at meetings;
5. Requesting that legal consultation be sought on any matter that has unclear legal ramifications;
6. Requesting that the association's accountants assess and evaluate any matter that has significant financial ramifications;
7. Obtaining and carefully reviewing both audited and unaudited periodic financial reports of the association;
8. Attending the association's meetings and reading the association's publications carefully to keep fully apprised of the organization's policies and activities;
9. Reviewing from time to time the association's articles of incorporation, bylaws, and other governing documents; and
10. Avoiding completely any conflicts of interest in dealing with the association and fully disclosing any potential conflicts.

Liability Protection

If preventive risk management fails, the liability of association officers and directors can be limited through indemnification by the association, insurance purchased by the association, and state volunteer protection laws.

Apparent Authority

In the landmark 1982 case, **American Society of Mechanical Engineers v. Hydrolevel**, the U.S. Supreme Court determined that an association can be held liable for the actions of its officers, directors, and other volunteers (including actions that bind the association financially), even when the association does not know about, approve of, or benefit from those actions, as long as the volunteer reasonably appears to outsiders to be acting with the association's approval (i.e., with its "apparent authority"). The Supreme Court made clear that associations are to be held strictly liable for the activities of volunteers who have even the apparent authority of the association. Even if an association volunteer does not in fact have authority to act in a particular manner on the association's behalf, the law will nevertheless hold the association liable if third parties reasonably believe that the volunteer had such authority. The law thus requires an association to take reasonable steps to ensure that the scope of its agents' (e.g., officers, directors, and committee members') authority is clear to third parties, and that agents are not able to hold themselves out to third parties as having authority beyond that which has been vested in them by the association — for example, by regulating access to association letterhead stationery.

Antitrust

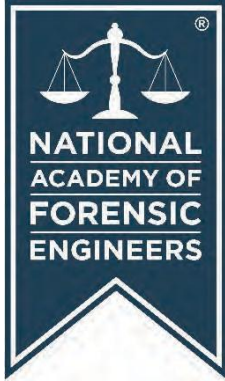
Associations are subject to strict scrutiny under both federal and state antitrust laws. The Sherman Act, the principal federal antitrust statute, prohibits "contracts, combinations, or conspiracies ... in restraint of trade." By their very nature, associations are a "combination" of competitors, so one element of a possible antitrust violation is always present, and only some action by the association that unreasonably restrains trade needs to occur for there to be an antitrust violation. Consequently, associations are common targets of antitrust plaintiffs and prosecutors.

The consequences for violating the antitrust laws can be severe. A conviction can carry stiff fines for the association and its offending leaders, jail sentences for individuals who participated in the violation, and a court order dissolving the association or seriously curtailing its activities. The antitrust laws can be enforced against associations, association members, and the association's employees by both government agencies and private parties (such as competitors and consumers) through treble (triple) damage actions. As the Sherman Act is a criminal conspiracy statute, an executive who attends a meeting at which competitors engage in illegal discussions may be held criminally responsible, even if he or she says nothing at the meeting. The executive's attendance at the meeting may be sufficient to imply acquiescence in the discussion, making him or her liable to as great a penalty as those who actively participated in the illegal agreement.

Common antitrust claims against associations include price-fixing (any explicit or implicit understanding affecting the price of a member's product or service is prohibited, even if the understanding would benefit consumers), group boycotts / concerted refusals to deal, customer allocation or territorial division, bid-rigging, and illegal tying arrangements. Antitrust-sensitive areas of association activity include membership restrictions, standard setting, certification and self-regulation, statistical surveys, and information exchange programs, among others.

To avoid antitrust liability, associations should adopt a formal antitrust compliance program, and this policy should be distributed regularly to all association officers, directors, committee members, and employees. The policy should require, among other conditions, that all association meetings be regularly scheduled — with agendas prepared in advance and reviewed by legal counsel — and that members be prohibited from holding “rump” meetings. Above all else, members should be free to make business decisions based on the dictates of the market — not the dictates of the association. Any deviation from this general principle, such as adoption of a Code of Ethics that infringes on members' ability to make fully independent business decisions, should be approved by legal counsel.

(1/5/21)



NAFE

Board of Directors

Key Rules of Order

and

Parliamentary Procedure Primer

NAFE Board of Directors Key Rules of Order

1. The presiding officer shall rule on all questions pertaining to the NAFE Bylaws, rules of order, and interpretations of parliamentary procedure.
2. Individuals who desire to address the NAFE Board of Directors shall approach a microphone and wait to be recognized by the presiding officer. When recognized, the speaker shall give his or her name and affiliation. Each speaker shall address comments to the presiding officer.
3. In all cases, the maker of a motion or resolution shall be entitled to speak first. The presiding officer will then ask for those who wish to speak in favor and then those who wish to speak against the motion or resolution to address the board in alternating fashion. This procedure will continue until there are no persons desiring to speak on one side of the question or the other, at which time debate will cease and the issue will be voted on. The presiding officer may impose a reasonable time limit per speaker if circumstances warrant. The presiding office may also rule a speaker's comments to be redundant to those of prior speaker(s) and ask the current speaker to be seated.
4. A Consent Agenda may be presented to the board members for adoption without debate. Upon request of a single member, any item may be removed from the Consent Agenda for separate consideration and action by the NAFE Board of Directors as an item on the Main Agenda.
5. An affirmative vote of two thirds of votes cast by the NAFE Board of Directors present and eligible shall be required to adopt amendments to the NAFE Bylaws.
6. Motions proposed by committees, task forces, and the NAFE Board of Directors prior to the start of the Board Meeting do not need a second. These motions will be included in the meeting agenda. A motion proposed by a member does require a second.
7. Should any member have an emergency that requires early departure from the NAFE Board of Directors meeting, the member shall notify the NAFE Secretary.

NAFE Board of Directors Parliamentary Procedure Primer

Parliamentary procedures are necessary for the efficient conduct of a meeting and, when used properly, can make the meeting more productive and enjoyable. Below are some general guidelines for using parliamentary procedure during a NAFE Board of Directors Meeting.

What is parliamentary procedure and where did it come from?

Parliamentary procedure is merely a set of rules for the conduct of meetings. These rules, when effectively used, allow everyone attending the meeting to be heard and to participate in the decision-making process. This also helps eliminate confusion.

Parliamentary procedures originated in the early English Parliaments and were brought to America with the first settlers. In 1876, Henry M. Robert published these procedures as a uniform manual on parliamentary law. *Robert's Rules of Order Newly Revised* is widely used today by most professional associations and is the basic handbook for presiding officers.

Why is parliamentary procedure important?

Parliamentary procedure has become an essential tool in conducting meetings because:

- it allows for democratic rule, flexibility, protection of rights, and a fair hearing for all participants;
- it has been tested over the years and has proven successful; and
- it is adaptable to any organization

How do we use parliamentary procedure?

Parliamentary procedure is used in a variety of ways in planning and conducting meetings, most notably by preparing and following a set agenda, by establishing a quorum (the number of members that must be present for business to be conducted legally), and by making motions.

Motions

A motion is merely a proposal that the body takes a stand or takes action on some issue. Motions are presented, seconded, debated, and decided (by vote). There are four general types of motions: **main motions, subsidiary motions, privileged motions, and incidental motions:**

- **Main motions** introduce subjects to the body for its consideration. Main motions cannot be made while another motion is before the Board. Main motions yield to privileged, subsidiary, and incidental motions. An example of a main motion is, "I move that the NAFE Board of Directors approve the proposed NAFE Professional Policy..."
- **Subsidiary motions** are more commonly known as amendments. The purpose of a subsidiary motion is to change the main motion or affect how it is handled. The proposed amendment must relate to the subject as presented in the main motion. An example of a subsidiary motion is, "I move the proposed NAFE Professional Policy be amended by striking the word 'the' in the first sentence and replacing it with the word 'a'"

- **Privileged motions** are most urgent and pertain to special or important matters not related to pending business. An example of a privileged motion is, “I move the NAFE Board of Directors adjourn....”
- **Incidental motions** involve issues of procedure that arise out of other motions. Incidental motions must be considered before the other motion. An example of an incidental is, “I move to suspend the rules for the purpose of....”

For a motion to be considered “in order”, the motion must relate to the business at hand and be presented at the proper time. A motion must not be obstructive, frivolous or contrary to the NAFE Bylaws.

Most motions require a “second”, i.e., an affirmation by another voting member of the NAFE Board of Directors to consider the motion. This practice prevents the body from spending time on a question that interests only one member.

One particular type of a Subsidiary Motion is a Substitute Motion. When a member wishes to offer a complete alternative to a main motion, that member gets recognized by the presiding officer and states the alternate motion that must be seconded. At this point the Board effectively has “dual main motions” and must determine which of the two alternatives will be ultimately acted upon. During the debate amendments to either motion (secondary amendments) may be entertained. Once all such amendments have been adjudicated the Board votes to select the motion to be acted upon, i.e. either the original Main Motion or the Substitute Motion.

Consider this scenario: A body owns a barn that it wishes to repaint. A motion is made and seconded to repaint the barn red within 30 days. Another member, not liking that color and sensing that 30 days is too short an interval, moves to substitute that the barn be repainted blue within 90 days. Now the body has “dual main motions” motions to consider. A supporter of the original motion, recognizing that 30 days may be too short, moves an amendment to change “30 days” to “60 days.” This amendment is approved by the body, resulting in an amended Main Motion. A supporter of the Substitute Motion, recognizing that the amended Main Motion now makes it more appealing, moves an amendment to the Substitute Motion to reduce the interval from “90 days” to “60 days.” This amendment is also approved. Now the body must vote on whether to consider the amended Main Motion or the amended Substitute Motion. After that vote is decided the body then finishes debate on the successful alternative, and the body votes that motion up or down.

The right to free and open debate is provided on most motions; some privileged and incidental motions are not debatable.

Most motions require only a simple majority vote, but motions concerning the rights of the Board or its members generally require a 2/3 majority vote for adoption.

Some motions can be re-debated and re-voted to give members an opportunity to change their mind. The “motion to reconsider” must come from a member who voted for the prevailing side.

Methods of voting on motions

There are five methods of voting to decide the outcome of motions: **by voice, by a show of voting signs, by roll call, by ballot, and by general consent.**

- **Voting by voice** is the most frequently used method at meetings. In this instance, the presiding officer asks those in favor to say “aye” and those opposed to say “no”. This method is used only for motions that require a majority vote. The presiding officer rules as to which side of the motion has received the greater number of votes. Any member may move for an exact count.
- **Voting by a show of voting signs** is accomplished by the board members raising their voting cards and tallying the sum of the weighted votes for both sides. This method is frequently used to clarify the results of a voice vote.
- **Voting by roll call** is conducted if a record of each member’s vote is needed. When voting by roll call, each member responds “yes” or “no” when his/her name is called. The weighted vote of each member is tallied to determine the result.
- **Voting by ballot** is used when secrecy is desired. In this type of voting, the members cast their votes on slips of paper or by computer. Again, the weighted votes of each voting member are tallied to determine the result.
- **Voting by general consent** is sometimes used when the motion is unlikely to be opposed. If someone objects to this method, the motion must be put to one of the types of vote described above.

In addition to the option of voting for or against an issue, a member may also abstain from voting (choose not to vote). When abstentions exist, the number of affirmative votes shall determine if a majority has been achieved to approve the proposed action.

A “motion to table” (lay on the table) is used to temporarily lay an issue aside to tend to a more urgent matter. The option to “take from the table” is always available to enable a body to reconsider the motion. This must occur before the adjournment of the current Board.

A “motion to postpone indefinitely” is a strategy to dispose of a motion without making a decision for or against. It is useful in the case of a badly chosen main motion for which either a “yes” or “no” vote would have undesirable consequences.

Parliamentary Procedure Summary

1. A motion must be on the floor before a topic is discussed. If a member starts to discuss something, the presiding officer must interrupt to ask “Does someone want to make a motion?” A motion is then made.
2. The presiding officer restates the motion and asks, “Is there a second?” Someone will generally second, but if no one seconds the motion, there cannot be discussion on the motion and it dies for lack of a second.
3. The presiding officer asks, “Is there any discussion? Would the maker of the motion like to speak to the motion?”
4. Individuals are then recognized by the presiding officer and allowed to speak in alternating order for or against the motion. Discussion must all relate to the topic of the motion.
5. The presiding officer asks “Is there any further discussion?” If there is no further discussion, the presiding officer will state “Hearing none – the motion before the Board is as follows....”
6. The presiding officer then directs “All in favor of the motion say aye; all opposed to the motion say no.” The motion carries or the motion fails.
7. Amendments to the main motion should be made prior to voting on the main (original motion).
8. Substitute Motions shall be handled as follows:
 - Main Motion to paint the barn red, motion seconded, discussion of the motion;
 - Substitute Motion to paint the barn blue, substitute motion seconded, discussion of substitute motion;
 - Discuss and perfect Main Motion and Substitute Motion concurrently;
 - Vote to replace Substitute Motion for Main Motion;
 - Vote on surviving Motion.

Parliamentary Procedure at a Glance

The following is a handy table for use at NAFE Board of Directors Meetings

Parliamentary Procedure At A Glance		Here are some motions you might make, how to make them, and what to expect of the rules.					
<i>To Do This:</i>	<i>You Say This:</i>	<i>May You Interrupt the Speaker?</i>	<i>Do You Need a Second?</i>	<i>Is It Debatable?</i>	<i>Can It Be Amended?</i>	<i>What Vote is Needed?</i>	<i>Can It Be Reconsidered?</i>
ADJOURN MEETING	“I move to adjourn.”	NO	YES	NO	NO	MAJORITY	NO
CALL AN INTERMISSION	“I move to recess for...”	NO	YES	NO ¹	YES	MAJORITY	NO
COMPLAIN ABOUT HEAT, NOISE, ETC.	“I rise to a question of privilege.”	YES	NO	NO	NO	NO VOTE	NO
TEMPORARILY SUSPEND CONSIDERATION OF AN ISSUE	“I move to lay the motion on the table.”	NO	YES	NO	NO	MAJORITY	NO ²
END DEBATE AND AMENDMENTS	“I move the previous question.”	NO	YES	NO	NO	2/3	YES ³
POSTPONE DISCUSSION FOR A CERTAIN TIME	“I move to postpone the discussion until...”	NO	YES	YES	YES	MAJORITY	YES
GIVE CLOSER STUDY OF SOMETHING	“I move to refer the matter to committee.”	NO	YES	YES	YES	MAJORITY	YES ⁴
AMEND A MOTION	“I move to amend the motion by...”	NO	YES	YES ⁵	YES	MAJORITY	YES
INTRODUCE BUSINESS	“I move that...”	NO	YES	YES	YES	MAJORITY	YES
<i>THE MOTIONS LISTED ABOVE ARE IN ORDER OF PRECEDENCE... BELOW, THERE IS NO ORDER...</i>							
PROTEST BREACH OF RULES OR CONDUCT	“I rise to a point of order.”	YES	NO	NO	NO	NO VOTE ⁶	NO
VOTE ON A RULING OF THE CHAIR	“I appeal from the chair’s decision.”	YES	YES	YES	NO	MAJORITY	YES
SUSPEND RULES TEMPORARILY	“I move to suspend the rules so that...”	NO	YES	NO	NO	2/3	NO
AVOID CONSIDERING AN IMPROPER MATTER	“I object to consideration of this motion.”	YES	NO	NO	NO	2/3 ⁷	YES ²
VERIFY A VOICE VOITE BY HAVING MEMBERS STAND	“I call for a division,” or “Division!”	YES	NO	NO	NO	NO VOTE	NO
REQUEST INFORMATION	“Point of information...”	YES	NO	NO	NO	NO VOTE	NO
TAKE UP A MATTER PREVIOUSLY TABLED	“I move to take from the table...”	NO	YES	NO	NO	MAJORITY	NO
RECONSIDER A HASTY ACTION	“I move to reconsider the vote on...”	YES ⁸	YES	YES ⁹	NO	MAJORITY	NO

NOTES:

¹ Unless moved when no question is pending.

² Affirmative votes may not be reconsidered.

³ Unless vote on question has begun.

⁴ Unless the committee has already taken up the subject.

⁵ Unless the motion to be amended is not debatable.

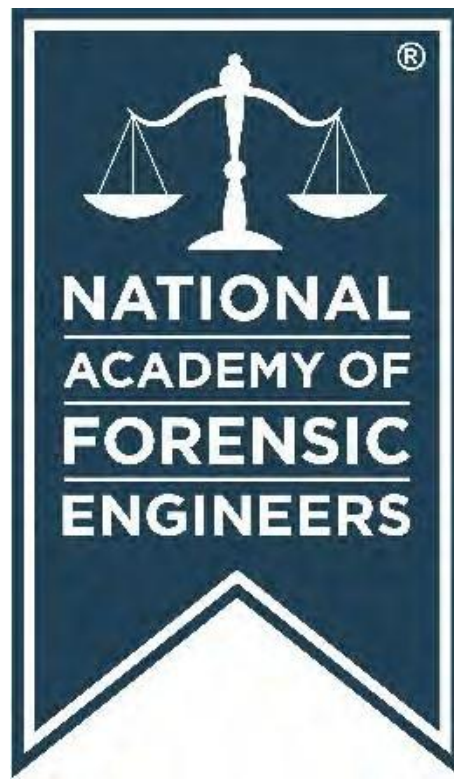
⁶ Unless the chair submits to the Board for decision.

⁷ A 2/3 vote in negative is needed to prevent consideration of the main motion.

⁸ Only if the speaker has the floor but has not actually begun to speak.

⁹ Unless the motion to be reconsidered is not debatable.

MISSION STATEMENT



The Mission and Objectives of The National Academy of Forensic Engineers NAFE

Mission

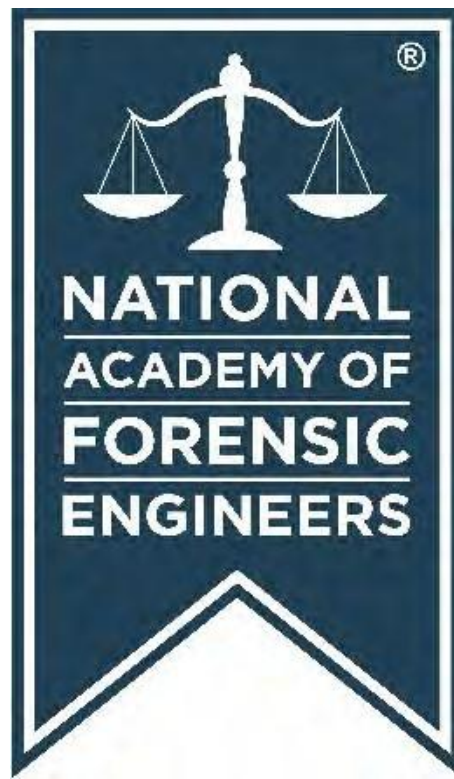
- Serving the public by advancing the ethical and professional practice of forensic engineering;
- Serving the jurisprudential system by certifying individuals having achieved expertise in forensic engineering;
- Serving Academy members and furthering the development of forensic engineers through education and the publication of peer-reviewed technical literature.

Objectives

The Objectives of NAFE are set forth in Article II of our Articles of Incorporation. These are:

- (a) To serve the public by advancing the skill and art of engineering analysis, investigation, consultation, and expert testimony in judicial and administrative proceedings which involve the use of engineering evidence, or the rendering of opinions based on engineering knowledge or judgment.
- (b) To establish criteria for and further the education of forensic engineers through formal studies, seminars, and publication of literature on the subject.
- (c) To engage in research and the publication of papers, books, and articles on the art and science of forensic engineering.
- (d) To elevate standards and the ethical concepts governing the practice of forensic engineering.
- (e) To cooperate with and assist other professions and organizations engaged in the administration of justice and resolution of disputes.
- (f) To certify individuals having acceptable experience in Forensic Engineering.

MEETING AGENDA





1266 W Paces Ferry Rd NW
Atlanta, GA 30327

WWW.NAFE.ORG

Tel: 404-268-0802
Fax: 404-841-6327

NAFE Board of Directors Meeting Agenda

January 17, 2025 (Friday)

<https://us06web.zoom.us/meeting/register/MvxtYFXiSwammHoSwH3JPA>

8:30 AM – 9:00 AM, Board Welcome and Orientation

9:00 AM – 10:45 AM, Board Meeting

11:00 AM - 12:15 PM, ASTM Committee E58 on Forensic Engineering Meeting

- 1) CALL TO ORDER
- 2) BOARD WELCOME – Steve Pietropaolo, Board President, NAFE
- 3) ROLL CALL AND CONFIRMATION OF VIRTUAL ATTENDANCE
- 4) BOARD ORIENTATION – Amanda Hendley, Executive Director
- 5) APPROVAL OF THE AGENDA
- 6) CONSENT AGENDA
 - a) Minutes:
 - i) NAFE Board of Directors Meeting dated January 9, 2024
 - ii) NAFE Membership Meeting dated January 19, 2024
 - iii) NAFE Board of Directors Meetings dated June 17, 2024
 - iv) NAFE Board of Directors Meeting dated July 19, 2024
 - b) Committee Reports:
 - i) Admissions - Aitken
 - ii) Bylaws and Articles of Incorporation – Gordon
 - iii) Conference Coordinator - Couture
 - iv) Continuing Professional Development – Leane
 - v) Contract Documents - Couture
 - vi) Education - Alvi
 - vii) Ethics - Sudler
 - viii) Finance – Marking
 - ix) Inspector of Elections and Audit - Kravitz
 - x) Insurance – Couture
 - xi) Legislative - Aitken
 - xii) Long-Range Planning - Janson
 - xiii) Membership – Janson
 - xiv) NAFE1 – Peruzzi
 - xv) Nominating – Leane
 - xvi) Public Relations – Rice
 - xvii) Publications and Technical Review – Kemper
 - xviii) Strategic Planning – Leane
 - xix) IT Committee – Leshner
 - xx) Discipline Specific



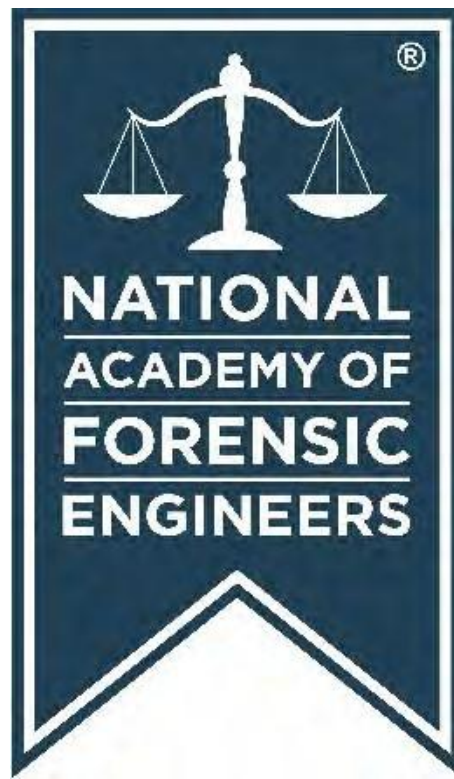
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- (1) Accident Reconstruction - Railsback
- (2) Biomechanical and Biomedical - Lee
- (3) Civil-Structural - Storensund
- (4) Fire Investigation - Ilove
- (5) Marine – Certuse
- (6) Products Liability – Metzler
- c) MOTION TO APPROVE: Consent Agenda
- 7) DISCUSSION ON ANY ITEMS REMOVED FROM CONSENT AGENDA BY BOARD MEMBERS
- 8) MAIN AGENDA
 - a) Officer Reports
 - i) Executive Director – Hendley
 - ii) Secretary – Drebelbis
 - iii) Treasurer – Wiers
 - iv) President – Pietropaolo
 - v) MOTION TO APPROVE: Officer Reports
 - b) Admissions
 - i) MOTION TO APPROVE: NAFE Fellow membership application for Clarence “Bart” Kemper-Aitken
- 9) ADJOURNMENT

PAST MEETING MINUTES





1420 King Street
Alexandria, VA 22314-2794
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MINUTES OF BOARD OF DIRECTORS
NAFE Board Meeting Tuesday, January 9, 2024
3:00 pm EST By video

Call to Order

President Joe Leane called the meeting to order at 3:00 pm EST, January 9, 2024
A quorum of the Board was present

Members in attendance:

Joe Leane, P.E., DFE (President)
Steve Pietropaolo, MS, P.E., CFEI, DFE (President Elect)
Michael Aitken, P.E., DFE, LEED AP, CxA (Senior Vice President)
Tonja Koob Marking, PhD, P.E., DFE, D.WRE (Vice President)
Bruce Wiers, P.E., DFE, CMRS, CFI CFEI, CVFI, CBIE (Treasurer)
James R. Drebelbis, AIA, P.E., DFE (Secretary)
Dan Couture, PEng, DFE (Director at Large)
Robert Peruzzi, PhD, P.E., DFE (Director at Large)
Liberty Janson, P.E., DFE (Past President)
Sam Sudler, P.E., DFE (Past President)
James Petersen, P.E., DFE (Past President)
Amanda Hendley – Executive Director Candidate
Monika Schultz (NSPE Executive Director)
Carla Graham

Discussion

New Executive Director. Amanda Hendley of Association Catalyst LLC (AC) is the selected candidate to be the new NAFE Executive Director. The agreement is for a three (3) year period. NAFE agrees to pay AC a monthly fee of \$3,500 for a 50-hour retainer. Hours exceeding the 50-hour retainer will be billed at \$85 per hour. In-person representation is billed at \$100 per hour. AC will not exceed the 50-hour retainer by more than 5 hours in any month without advance written approval of NAFE. Either party may terminate this Agreement without cause with a sixty (60) day written notice. Amanda will increase her staff to accommodate NAFE's needs. Contract details require refinement. The board authorizes the President to sign the final contract. Motion to accept by Steve Pietropaolo, Second by Michael Aitken. Approval UNANIMOUS.

Maritz Global Events. Maritz Global is the 3rd party provides site source and selection services for selecting and negotiating of our Conference hotels. Their contract needs renewal. Motion to extend the 3-year contract by Steve Pietropaolo, Second by Michael Aitken. Approval UNANIMOUS

Summer Conference Location. The identified location for the 2024 Summer Conference is Ann Arbor, MI to occur July 19-21. Room costs are \$189/night. Other locations such as Portland, ME and Minneapolis, MN were rejected because of cost. Motion to accept Ann Arbor, MI as the venue for the 2024 Summer Conference by Steve Pietropaolo, Second by Michael Aitken. Approval For 10, Abstention 1.

Close

Update on the NAFE 2024 Winter Conference. Attendance is strong 104 are expected at the Saturday presentations and 81 at the Sunday presentations. 20 first timers are signed up.

The meeting Closed by Joseph Leane, PE at 3:46 PM EST

Respectfully submitted,

James R. Drebelbis, AIA, P.E., DFE
NAFE Secretary



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MINUTES OF BOARD OF DIRECTORS 2024- WINTER MEETING

HELD at DAYTONA BEACH, FL on JANUARY 19, 2024

1. INTRODUCTORY

NAFE Board of Directors Meeting Schedule

January 19, 2024 (Friday)

8:30 AM – 8:45 AM, Board Orientation

8:45 AM – 2:00 PM, Eastern Time

12:00 PM – 1:00 PM Lunch (on your own)

2. BOARD ORIENTATION – Monika Schulz, Executive Director NAFE

The NAFE Board of Directors is a Legal body that has responsibilities – Monika Schulz:

Fiduciary Duty to the organization duty care (be prepared for meeting, participate),
loyalty (interests of NAFE), obedience (comply with law and recuse if conflict)

Service of the members is to the public, academy, and judicial system

Introduction of Amada Hendley, new Executive Director – Joe Leane, P.E.

Passing of Drew Peake, Feb 24th memorial service – Joe Leane, P.E.

3. CALL TO ORDER

Joe Leane, P.E. NAFE President called the meeting of the Board of Directors to Order in connection with the 2024 Winter Conference at 8:30 AM on January 19, 2024

4. ROLL CALL AND CONFIRMATION OF VIRTUAL ATTENDANCE

Board Members - Quorum present

Joseph Leane, PE, President

Steve Pietropaolo, PE, President-Elect

Michael Aitken, PE Senior Vice President

Tonja Koob Marking, PhD PE, Vice President

Bruce Wiers, PE, Treasurer

James R. Drebelbis, AIA, PE, Secretary
Daniel Couture, Peng, Director at Large
Robert Peruzzi, PhD, PE, Director at Large
Samuel Sudler, PE Past President (2022)
Liberty Janson, PE Past President (2021)
James Petersen, PE Past President (2020)

Non-Board members attendees

Amanda Hendley Exec. Dir.
Monika Schulz, Interim Exec Dir.
Carla Graham
Mike Stichter, PE
Mitch Maifield, PE
Bart Kemper, PE
Ben Railsback, PE
Gary Kilpatrick
Curtis Falany, P.E.
Marty Gordon, P.E.
Mike Plick, m P.E
Michael Leshner, PE

Virtual Attendees:

Ellen Parson
Maureen Davis, P.E.
Shaylyn Westmoreland
Ebenezer Opoku Yeboah
Kevin Houser, P.E.
Michael Kravtiz, P.E.

5. APPROVAL OF THE AGENDA

Motion to approve the Consent agenda Michael Aitken, P.E. 2nd James Peterson, P.E.
Unanimous The motion to approve the agenda Carried Unanimously

6. CONSENT AGENDA

The consent agenda consists of those items that, to conserve time, will not be discussed, have previously been discussed, or can be reviewed by the members in the Board of Directors Book for the 2024 Winter Conference. Consent Agenda items are:

- 6.1 Minutes:
- 6.2 NAFE Board of Directors Meetings dated July 14, 2023
- 6.3 NAFE Membership Meeting dated July 15, 2023
- 6.4 NAFE Board of Directors Meeting dated October 30, 2023
- 6.5 NAFE Board of Directors Meeting dated January 9, 2024
- 6.6 Committee Reports:
 - 6.6.1 Continuing Professional Development – Leane
 - 6.6.2 Education - Alvi
 - 6.6.3 Ethics - Sudler

- 6.6.4 Finance - Aitken
- 6.6.5 Inspector of Elections and Audit - Kravitz
- 6.6.6 Legislative - Aitken
- 6.6.7 Long Range Planning - Janson
- 6.6.8 Membership – Aitken
- 6.6.9 NAFE1 – Peruzzi
- 6.6.10 Public Relations – Peruzzi
- 6.6.11 Publications and Technical Review - Kemper
- 6.6.12 Discipline Specific
- 6.6.13 Accident Reconstruction - Railsback
- 6.6.14 Biomechanical and Biomedical - Lee
- 6.6.15 Civil-Structural - Storensund
- 6.6.16 Fire Investigation - Icové
- 6.6.17 Marine - Certuse
- 6.6.18 Products Liability – Metzler (Motion to approve Consent Agenda)

7. DISCUSSION OF ANY ITEMS REMOVED FROM CONSENT AGENDA

Several items were removed from the Consent Agenda for discussion by the Board.

Motion to discuss items removed from consent agenda by Daniel Couture, Peng, Second by Steve Pietropaolo, P.E. The motion Carried Unanimously

7.1 Admissions – Pietropaolo –

Need to gain more members Motion to accept the report of the Admissions Committee by Robert Peruzzi, PhD, P.E. , Second by Tonja Koob Marking, PhD, P.E. The motion Carried Unanimously.

7.2 Bylaws and Articles of Incorporation – Janson

Proposed removal of the words Executive Director *Emeritus* and Executive Secretary in by laws leaving in place the term Executive Director. Motion to accept the report of the Bylaws Committee by Tonja Koob Marking, PhD, P.E., Second by Steve Pietropaolo, P.E. The motion Carried Unanimously

7.3 Conference Coordinator – Couture.

Discussion regarding the survey results from the 2023 Summer Conference in Kansas City. We now have several years of survey data that can be used to compare responses.

Sponsorship. The objective of sponsorship is to increase revenues for the Academy. Sponsorship of conferences has not yet been implemented because the Academy is learning that the process is more complicated than originally imagined. For example, we may need to consider the issue of renting exhibit space for the sponsors and determining how NAFE can limit the influence of sponsor over the content of the conference.

Sunday practice programs is valuable for all members but especially

valuable for younger members while the Saturday technical programs are in the interest of all members.

Motion to accept the report of the Conference Coordinator by Michael Aitken, P.E., Second by Steve Pietropaolo, P.E. The motion Carried Unanimously

7.4 Contract Documents – Couture

Contracts with clients. We had a presentation on contracts in the 2023 Summer conference. Years ago, Marvin Spector provided a one-page contract for FE services. One should enlist legal counsel when developing contracts. Motion to accept the report of the Contract Documents Committee by Steve Pietropaolo, P.E., Second by Michael Aitken, P.E., P.E. The motion Carried Unanimously

7.5 Insurance – Couture

Discussion of coverage by Insurance Companies offering E&O Insurance. Motion to accept the report of the Insurance Committee by Robert Peruzzi, PhD, P.E., Second by Tonja Koob Marking, PhD, P.E. The motion Carried Unanimously

7.6 Nominating – Sudler

Sameul Sudler presented the list of officers for 2025. Motion for acceptance of the nominations for office by Samuel Sudler, P.E., Second by James Peterson, P.E. The motion Carried Unanimously

7.7 Journal Technical Review – Bart Kemper

Considering online seminars and books based on past papers. Motion to accept the report of the Journal Technical Review by Michael Aitken, P.E., Second by Tonja Koob Marking, PhD, P.E. The motion Carried Unanimously

7.8 Website – Mitch Maifield.

Each director has a NAFE email which is updated following the induction of new officers. Help desk board lists a count of items organized by conversations, responses, and closed. Training scheduled for the website. One objective of the website is to gain new members.

Motion to accept the report of the Website Committee by Daniel Couture, Peng, Second by Robert Peruzzi, PhD, P.E. The motion Carried Unanimously.

8. MAIN AGENDA

8.1 Officer Reports

- 8.1.1 Executive Director – Schulz
- 8.1.2 Secretary – Drebelbis
- 8.1.3 Treasurer – Wiers

NAFE financial position was low but record winter conference helps the cash flow.

Early bird reduced fee will be retained.

8.1.4 Credit Card Payment Proposal (For Approval)

Accepting credit cards. Access to our credit cards is currently through Authorize.net. Credit Card are processed by TYS. TYS is increase the processing fee. NAFE charges no additional fee for using credit card. To reduce the cost of processing credit cards, a proposed change of processor from TYS to CMS. Motion to change the credit card processor from TYS to CMS by Michael Aitken, P.E., Second by Steve Piertropaolo, P.E. The motion Carried Unanimously

8.1.5 President – Leane

Motion to approve Officer Reports by Michael Aitken, P.E , Second by Robert Peruzzi, PhD, P.E. The motion Carried Unanimously

8.2 Bylaws Committee Recommendation on Revisions (For Approval)- Janson

Motion to Accept the revision to the Bylaws by Liberty Janson, P.E. Steve Piertropaolo, P.E. The motion Carried Unanimously

8.3 Strategic Planning Update (For Approval) – Monika Schulz

Developing a draft for approval then to members for input then final by summer conference Motion to approve the updated version of the Strategic Plan by Steve Piertropaolo, P.E., Second by Michael Aitken, P.E. 12 votes for the motion, 1 abstention.

8.4 Membership – the purpose is to cultivate new members and retain current members however the committee did not meet in 2023 but relied on the work of members to grow the Academy. – Aitken

Discussion:

Survey to be conducted at the end of the conference.

IEEE and ASCE have Forensic Sections but those organizations do not provide Diplomate and publication.

Members are encourage to make first timers and new members feel welcome.

Encourage members to engage and participate at committee level

Motion to accept the report of the Membership Committee by Joseph Leane, P.E. Second by Daniel Couture, Peng. The motion Carried Unanimously

8.5 Nominations – The focus of nominations is to cultivate new leaders to the Academy (For Discussion) – Motion to accept the report of the Nominating Committee by Samuel Sudler, P.E. Second by Joseph Leane, P.E. The motion Carried Unanimously

8.6 Summer 2024 NAFE Conference to be held in Ann Arbor, MI on July 19-21.

9. ADJOURNMENT

Motion to Adjourn by Michael Aitken, P.E.. Seconded James Peterson, P.E. The motion Carried Unanimously

The Meeting of the Board of Directors closed at 12:00 EST on January 19, 2024.

Respectfully Submitted,

James R. Drebelbis, AIA, P.E., DFE
NAFE Secretary



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Alexandria, VA 22314-2794
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MINUTES OF BOARD OF DIRECTORS INTERIM MEETING

Monday, June 17, 2024

9:00 am EST By video

Call to Order

President Steve Pietropaolo called the meeting to order at 900 AM EST, June 17 2024
A quorum of the Board was present

Members in attendance:

Joe Leane, P.E., DFE (President)
Steve Pietropaolo, MS, P.E., CFEI, DFE (President Elect)
Michael Aitken, P.E., DFE, LEED AP, CxA (Senior Vice President)
Tonja Koob Marking, PhD, P.E., DFE, D.WRE (Vice President)
Bruce Wiers, P.E., DFE, CMRS, CFI CFEI, CVFI, CBIE (Treasurer)
James R. Drebelbis, AIA, P.E., DFE (Secretary)
Dan Couture, PEng, DFE (Director at Large)
Robert Peruzzi, PhD, P.E., DFE (Director at Large)
Ben Railsback, P.E. DFE (Director at Large)
Mike Leshner, P.E (Past President)
Amanda Hendley (Executive Director)

Discussion

5.1 Upcoming board Meeting

Reports are underway for Strategic Planning, Public Relations, By Laws, NAFE1, CPD
Nominating underway
Reports are needed for Education and, Journal

5.2 Job Board

The purpose of the job board, as related to NAFE, is for recruiters to located candidates when trying to fill forensic engineering positions. A similar job board is the IEEE Job Site which functions as a job aggregator. The association job boards are managed by a third party, for example, YourMembership. The arrangement with the aggregator is at no cost to NAFE, but with revenue sharing, with payment 60 days after a contract with an applicant is signed.

5.3 Membership

Under consideration is opening NAFE to international members with the objective of building membership and expanding potential for Journal applications. The challenges are reaching potential members, defining membership in organizations equivalent to NSPE, and increasing membership without diluting the basis of NAFE. To open NAFE to international members will require a change to the Bylaws and may affect CESB certification. Sam Sudler will check with CESB concerning any actions required or

Minutes of the NAFE Board of Directors Interim Meeting

constraints.

5.4 Admissions

Admissions to NAFE membership are up to date. The objective is to simplify the application form and to emphasize that reference must come from either a NAFE member, a Judge or an Insurance Adjuster. It is acknowledged that it is hard for prospective members to know NAFE members. One possibility is to allow references from PE whose practice could qualify the reference for NAFE member. This expansion of the criteria has the potential for identifying additional potential members.

5.5 Strategic Planning

During the Summer Board meeting additions to the plan and questions concerning the document will be addressed.

5.6 Conference Open Items

Committee meetings will occur on Friday 1 pm to 3 pm

ASTM E58 Committee will meet during the NAFE conference weekend.

NAFE Winter Conference will be held January 15-19, 2025, in Santa Fe, NM at Dury Plaza Hotel.

NAFE Summer Conference will be held July 11-13, 2025, in Ottawa, Canada at the Marriott (Downtown)

Close

The meeting Closed at 9:00 am EST

Respectfully submitted,

James R. Drebelbis, AIA, P.E., DFE
(SR 938) NAFE Secretary



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WWW.NAFE.ORG

MINUTES OF BOARD OF DIRECTORS 2024- SUMMER MEETING
HELD at ANN ARBOR, MI on 7/19/2024

CALL TO ORDER

Steve Pietropaolo NAFE President called the meeting of the Board of Directors to Order in connection with the 2024 Summer Conference on 7/19/2024

ROLL CALL AND CONFIRMATION OF VIRTUAL ATTENDANCE

Board Members - Quorum present

Steve Pietropaolo, PE, President
Michael Aitken, PE President Elect
Tonja Koob Marking, PhD PE, Senior Vice President
Daniel Couture, PEng, Vice President
Bruce Wiers, PE, Treasurer
James R. Drebelbis, AIA, PE, Secretary
Ben Railsback, PE, Director at Large
Robert Peruzzi, PhD, PE, Director at Large
Joseph Leane, PE, Past President (2023)
Samuel Sudler, PE Past President (2022)
Liberty Janson, PE Past President (2021)
James Petersen, PE Past President (2020)

Non-Board members attendees

Monika Schultz
Michael Kravitz, PE
Michael Leshner, PE
Mitch Maifield, PE
Mike Stichter, PE
Zoe Alvi, PE
Shawn Ray, PE
Ellen Parsons

Dave Icon, PE
Bart Kemper, PE
Michael Plick, PE
Greg Boso, PE
John Jacobson, PE
John Certues , PE
Luke Pachal, PE
Mark Densmore, PE
Larry Nelson, PE
Eugene Chang, PE
Robert Lewis, PE
Daniel Frates, PE
Martin Gordon, PE
Kevin Houser, PE
Roger Boyell, PE

Schedule

8:00 AM - 8:30 AM, Board Welcome and

Orientation 8:30 AM -12:00 PM , Board Meeting

12:00 PM - 1:00 PM, Lunch (on your own)

1:00 PM - 3:00 PM, ASTM Committee E58 on Forensic Engineering Meeting

- 1. BOARD WELCOME - Steve Pietropaolo, Board President, NAFE**
- 2. BOARD ORIENTATION-Amanda Hendley, Executive Director, NAFE**
- 3. CALL TO ORDER**
- 4. ROLL CALL AND CONFIRMATION OF VIRTUAL ATTENDANCE**
- 5. APPROVAL OF THE AGENDA motion Joseph Leane 2nd Michael Aitken**
- 6. CONSENT AGENDA**

6.1 Minutes:

6.1.1 NAFE Board of Directors Meeting dated October 30, 2023

6.1.2 NAFE Board of Directors Meeting dated January 9, 2024

6.1.3 NAFE Membership Meeting dated January 19, 2024

6.1.4 NAFE Board of Directors Meetings dated June 17, 2024

6.2 Committee Reports:

6.2.1 Admissions - Aitken

6.2.2 Bylaws and Articles of Incorporation - Gordon

6.2.3 Conference Coordinator – Couture removed

6.2.4 Continuing Professional Development – Leane removed

6.2.4.1 CPD

6.2.4.2 Verify that member of NSPE plus another technical organization.

6.2.5 Contract Documents – Couture

- 6.2.5.1 Themes
- 6.2.6 Education - Alvi
- 6.2.7 Ethics - Sudler
- 6.2.8 Finance - Marking
- 6.2.9 Inspector of Elections and Audit - Kravitz
- 6.2.10 Insurance - Couture
 - 6.2.11 Legislative - Aitken
 - 6.2.12 Long Range Planning - Janson
 - 6.2.13 Membership-Janson
 - 6.2.14 NAFE1 - Peruzzi
 - 6.2.15 Nominating- Leane
- 6.2.16 Public Relations - Rice
- 6.2.17 Publications and Technical Review- Ellen Parsons removed
 - 6.2.17.1 14 abstracts 10 selected. 1 international + backups
 - 6.2.17.2 6 associate editors
 - 6.2.17.3 Need more associate editors to limit the number of papers to two per editor
 - 6.2.17.4 14 papers are currently in backlog the oldest of which is dated 2017
 - 6.2.17.5 Reviewers must devote time and have the proper quantification
- 6.2.18 IT Committee - Leshner
- 6.2.19 Discipline Specific
 - 6.2.19.1 Accident Reconstruction - Railsback
 - 6.2.19.2 Biomechanical and Biomedical - Lee
 - 6.2.19.3 Civil-Structural - Storensund
 - 6.2.19.4 Fire Investigation - leave
 - 6.2.19.5 Marine - Certuse
 - 6.2.19.6 Products Liability- Metzler
- 6.3 MOTION TO APPROVE: Consent Agenda Liberty Janson 2nd by Tonya Toob Marking

7. DISCUSSION ON ANY ITEMS REMOVED FROM CONSENT AGENDA BY BOARD MEMBERS

8. MAIN AGENDA

- 8.1 Officer Reports
 - 8.1.1 Executive Director- Hendley
 - 8.1.1.1 Ways to improve membership
 - 8.1.1.2 Reference letter

- 8.1.1.3 Marketing communications.
- 8.1.1.4 Agreement w/ Merit for venue selection. No selections for 2025
- 8.1.1.5 communicate with new members re CPD and alternate membership requirements
- 8.1.2 Secretary- Drebelbis
- 8.1.3 Treasurer - Wiers
- 8.1.4 President - Pietropaolo
- 8.1.5 MOTION TO APPROVE: Officer Reports by Robert Peruzzi 2nd by Liberty Janson
- 8.2 Strategic Planning
 - 8.2.1 Vision 90% Mindset 70% Focus 77%
 - 8.2.2 Motion to Approve Final Strategic Planning Results by Joe Leane, 2nd by Michael Aitken, all in favor except Liberty Janson
- 8.3 Job Board - Pietropaolo/Hendley
 - 8.3.1 Purpose of the job board is to provide a source for companies looking for employees or members looking for positions in firms
 - 8.3.2 Issues to consider:
 - 8.3.2.1 Who can post on the job board
 - 8.3.2.2 NSPE has a job board. Can we use theirs? However this causes a problem with revenue sharing.
 - 8.3.2.3 Outside entity runs the job board, but NAFE must monitor the board.
 - 8.3.2.4 No cost except the cost of building job board is incurred if we do not follow through.
 - 8.3.3 The contract is for three years with an early termination clause.
 - 8.3.4 Motion by Steve Pietropaolo 2nd by Michael Aitken. Vote 7 for, 3 nay
- 8.4 Membership
 - 8.4.1 MOTION TO DISCUSS: International Membership Proposal - Couture /Janson/Sudler
 - 8.4.2 Issues to consider
 - 8.4.2.1 International PEs (IntPE) raises a concern regarding CESB
 - 8.4.2.2 IntPE is equivalent to PE in other countries + 7 years experiences,
 - 8.4.2.3 If IntPE is equivalent to NCEES verification would that qualify for NAFE membership.
 - 8.4.2.4 Is IntPE equivalent to a PE license to qualify for admission to NAFE.
 - 8.4.3 Proposed Motion to submit the inclusion of IntPE to the Bylaws Committee for revision of Bylaws. Motion by Steve Pietropaolo / Approved (See Board Report for wording 1st and 2nd paragraphs.) The wording of the propose motion is:
 - The Admissions Committee moves that the By Laws Committee study and develop appropriate wording for presentation to the NAFE Board of

Directors at the 2025 Winter Conference a change to the By Laws permitting Forensic Engineers with an International PE (IntPE) designation and membership in a National or Provincial engineering advocacy body equivalent to NSPE consideration for NAFE membership as a Member or Senior Member.

8.4.4 Approval of a task force to study the inclusion of IntPE as fulfilling the requirement for NAFE membership. Move/Second: Daniel Couture / Sam Sudler
Vote: approved

8.5 Admissions

8.5.1 Form Changes regarding References for NAFE membership – Aitken

8.5.1.1 Currently there are 25 additional membership applications. Applicants are having difficulty getting a reference from NAFE members.

8.5.1.2 For consideration: NAFE to accept a reference for request for membership from the applicant’s supervisor even if the supervisor is not NAFE member.

8.5.1.3 This change may require modifying Bylaws c) (7) references categories to accept a reference from a supervisor who is not a member of NAFE. The proposed revision may require a change to the bylaws.

8.5.1.4 Related proposed change to the application form: remove “supervisor” from the form because the supervisor may not be a PE or a FE. Replace the word “supervisor” in the bylaws and form to “Other forensic professional” to indicate forensic qualifications of the reference.

8.5.1.5 Tabled by Michael Aitken

8.5.2 MOTION TO APPROVE: NAFE Fellow membership application for Steve Pietropaolo – Introduced by Michael Aitken, Motion by Joe Leane/Second by Sam Sudler
Vote: Unanimous

8.6 Bylaws Committee Recommendation on Revisions (For Approval)-Gordon

8.6.1 Request IntPE to be included in bylaws.

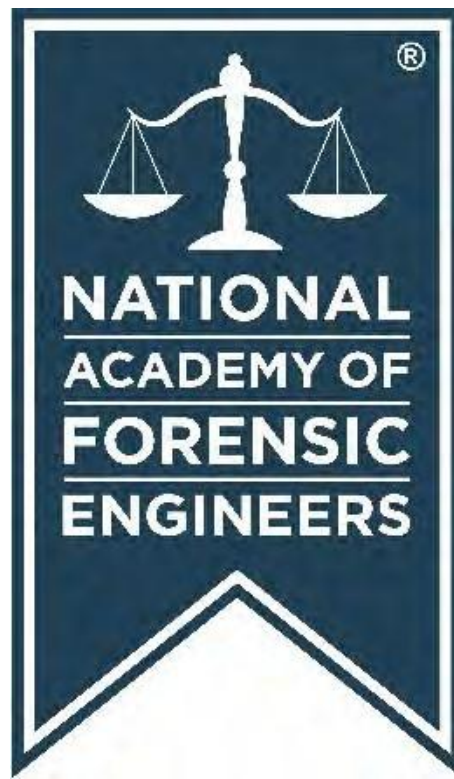
9. ADJOURNMENT

9.1 Motion to Adjourn. By Steve Pietropaolo, Seconded Michael Aitken, Vote CARRIED UNANIMOUS

Respectfully Submitted,

James R. Drebelbis, AIA, P.E., DFE
NAFE Secretary

ADMISSIONS





November 27, 2024

National Academy of Forensic Engineers
Admission Committee Report

The Admission Committee has not formally meet; however, through Amanda's hard work and diligence, admission applications have been processed and approved in a timely manner. Membership is growing. We need to thank Amanda, Joe Leane, Liberty Janson and Sam Sudler for their strong, diligent, efforts are processing applications and pushing membership number in 2024.

Amanda has been working on the online application and application process to clarify key requirements of required documentation and references. She has been working on developing a method of allowing non-member applicants that may not be acquainted with NAFE or NAFE members, to obtain the required references for application.

Membership as of January 1, 2024;

MEMBERSHIP TYPE	MEMBER COUNT
Affiliate	59
Student	1
Associate	38
Member	120
Senior	120
Fellow	56
International	2
Grand Total	396

As of July 4, 2024, the NAFE membership make-up is as follows;

MEMBERSHIP TYPE	MEMBER COUNT
Affiliate	69
Student	3
Associate	41
Member	127
Senior	123
Fellow	56
International	2
Grand Total	421

As of November 27, 2024, the NAFE membership make-up is as follows;

MEMBERSHIP TYPE	MEMBER COUNT
Affiliate	80
Student	6
Associate	44
Member	131
Senior	124
Fellow	57
International	2
Grand Total	444

Membership Summary

	1-Jan-24	4-Jul-24	27-Nov-24	
Membership Type	Member Count	Member Count	Member Count	Difference
Affiliate	59	69	80	11
Student	1	3	6	3
Associate	38	41	44	3
Member	120	127	131	4
Senior	120	123	124	1
Fellow	56	56	57	0
International	2	2	2	0
	396	421	444	252
Increase YTD				12.1%

In January 2024, President Pietropaolo requested that I as the incoming Admissions Chair, Amanda Hendley as our new Executive Director and her staff be looped in immediately on the process so that they can lend support and assist in managing the process and providing assistance on following up and contacting applicants. The procedure of reviewing applications and processing these applications has significantly been streamlined due to the efforts of Mitch Maifeld and his IT committee's work on bringing us up to speed of the admissions process and use of the CivCRM system. As committee chair, I want to thank Mitch and Amanda for their hard work.

Further, the entire committee should review the NAFE Member Structure Matrix below, so they completely understand the requirements for member grades.

Admittance:	Application	Application Fee	References (see note below)	E.I.T. (Engineering Intern) or PhD Engineering	Engineering License (US-PE or Canadian-PEng)	NSPE Membership	National / International Technical Society Membership	Years of Professional Experience (Min)	Years of Forensic experience (Min)	Forensic Engineer Cases Prepared (Min)	Court Room Testimony (Min)	Years as Member or Senior Member	NAFE Papers presented + active NAFE participation
Board Certified Diplomate													
Fellow	General	N/A	3 Fellows +1	N/A	Required	Required	Required	20	15	50	10	4	2
Senior Member		N/A	3	N/A	Required	Required	Required	12	5	10	5	N/A	N/A
Member		N/A	2	N/A	Required	Required	Required	5	2	2	2	N/A	N/A
Non-Board Certified Diplomate													
Associate Member	General	N/A	2	EIT, EI, PE, PEEng, IA, AI, RA (AIA), LSIT or LS/PS	NSPE, AIA or NSPS		Required	4	2	2	N/A	N/A	N/A
Affiliate	Affiliate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Student Affiliate		N/A	N/A	N/A	N/A	Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Notes: NAFE member references must be from members at, or above, the grade requested Upgrades only need additional references as required to fulfill requested grade requirements													

August 7-9, 2024, NSPE held their annual conference in Raleigh, NC. I attended the conference as an NSPE member and as a NAFE representative. I attended the NSPE Leadership Summit on behalf of NAFE. During the Summit, I was able to present NAFE to the NSPE state and national leadership, indicating the importance of partnership to support our joint members. NAFE had an exhibitor’s booth at the conference. NSPE provided the booth to NAFE at no charge. We had NAFE information available to inform NSPE members of NAFE’s vital mission to Forensic Engineering. I want to thank all the NAFE members present at the NSPE Conference and their continued support in NAFE.

Legislative Committee Report

The legislative committee has not met and has no activities currently. The committee request that all members of NAFE work with their state chapter of NSPE to stay informed of all legislative matters in their home state. If new matters are identified on a state or local level which impact the engineering or forensic engineering industries, they should bring them to the attention of the Legislative committee.

If you should have any concerns or questions, please do not hesitate to contact me.

Sincerely,

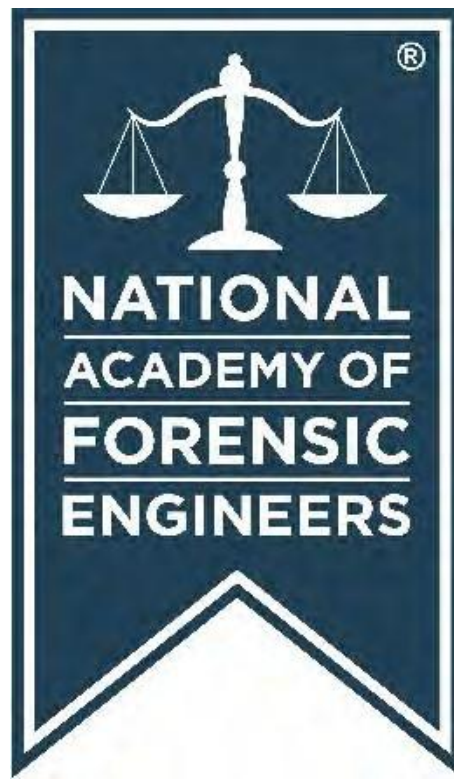
MEA Consulting Engineers, Inc.

Michael E. Aitken, P.E. F.NSPE, DFE, LEED AP O+M, CxA

Vice President



BYLAWS & AOI





Rochester Institute of Technology

Office of the Dean, CET
15 Lomb Memorial Drive
Rochester, NY 14623-5604

December 5, 2024

Ms. Amanda Hendley
Executive Director
National Academy of Forensic Engineers
1266 W Paces Ferry Road #141
Atlanta, GA 30327-2794

Dear Ms. Hendley,

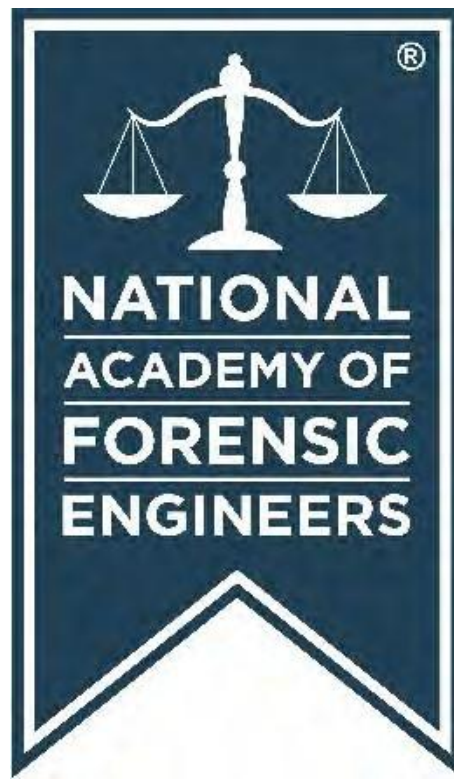
There has been no activity involving the Bylaws and Articles of Incorporation Committee since our July 2024 meeting in Ann Arbor, MI. The committee remains ready to assist upon request.

Sincerely,

A handwritten signature in blue ink that reads "M. E. Gordon, PE".

Prof. Martin E. Gordon, PE, DFE, F.NSPE
Vice-President of External Relations, ASEE
Northeast Regional Director, Director Representative to Executive Committee, NSPE
Professor and Director for External Academic Relations
Rochester Institute of Technology

CONFERENCE COORDINATOR





1266 W Paces Ferry Rd NW
Atlanta, GA 30327

Tel: 404-268-0802
Fax: 404-841-6327

WWW.NAFE.ORG

Report of the Conference Coordinator

Dear Board of Directors:

The Conference Coordinator position was developed to assist the Technical Committee and the Education Committee and to provide guidance and support to the Executive Director during the planning and implementation of the Academy's two yearly conferences.

Planning and Implementing Activities

Following the success of the Dayton Beach Winter 2024 and Ann Arbor Summer 2025 conferences, during which we had excellent in-person attendance numbers and excellent feedback from attendees, the ad-hoc organizing committee met in the early fall (August 23rd, September 6th, October 7th) with the Education Committee, and worked out a practical and interesting theme for the Santa Fe conference. This built on discussions with Greg Boso, and we developed a consensus for a Renewable Energy theme, and then began implementation.

The Conference Coordinator and other members reached out on behalf of the organizing committee to a few speakers who would be able to reinforce that theme.

Saturday Sessions

We have to rely on Sunday to excite our members: -- the Technical Committee has less control over the content, because it depends on the type, discipline and personnel who submit during the call. This fall the eight papers and two spares arrived after some prodding by Ellen Parson. We will witness a range of topics for the technical talks covering fires, electrical troubles and construction. These are all being peer-reviewed by the audience, before they move into the publication stream of the Journal of the National Academy of Forensic Engineers.

Sunday Sessions

We were able, thanks to the network connections of the education committee's President-Elect Michael Aitken, to engage Brian Malm, the current president of NSPE to come and present on ethical issues in engineering. This covers off the learning requirement for some stated Boards.



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On our feedback forms following the NAFE conferences, we often see “the expert in action in a trial” topic arise, and thankfully, we were able to encourage local attorneys Amy Headrick and Leah Shover from Santa Fe to discuss and demonstrate a trial in which an expert will be examined under (moot) oath.

Following on the theme of renewables and the magnitude of the hazards from weather, I requested assistance from the Intact Centre for Climate Adaptation at the University of Waterloo, through my acquaintance with Kathryn Bakos, a Director at the ICCA. We were able to successfully convince her to be a keynote speaker for Santa Fe, and she accepted the invitation. Kathryn will present and lead a discussion of the way that insurance companies and other businesses are approaching a future in which hazards are increasing to property and people.

We were able to engage Stas Hionis of PV Amps to provide a discussion on solar fields from their construction phases through to their implementation and repair, including investigation of problems with solar fields, since these fields are entering into service across North America in the world. More solar fields in operation will mean that insurers and underwriters will have them in focus, attempting to assess the risks to operation, and of course, it follows directly that Forensic Engineers will be involved in the investigation of incidents at these facilities.

To add to the content on Sunday, Gina Bumshteyn of LGI will present on some of her investigations into failures of these types of panels and electronic devices.

To wrap up the Education session, recently-accepted Member Scott Anson stepped up to provide a refresher on non-destructive evaluation techniques, both old and new.

Thanks to all who helped put together a strong Sunday program for the Santa Fe conference! We recognize that content is important, because without it we cannot do the promotion to encourage attendance. You will probably all have seen the email blasts, and the much more eye-pleasing teasers emanating from HQ via CiviCRM, and on LinkedIn. For those, I have to thank our Executive Director Amanda Hendley, who has the fine touch of the brush and the vision to make it so.

Board Meeting and ASTM E58 Coordination -Tour of Santa Fe Community College Energy Center

With the Board Meeting using a consensus-style agenda, it is expected to be thorough and effective on Friday morning. We have resumed coordinating with Kelly Paul of ASTM, such that the ASTM E 58 committee meeting will occur before lunch on Friday.



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This freed up the afternoon for a tour of the Santa Fe Community College energy centre for people attending the conference. SFCC is about 20 minute drive away from the hotel but that will allow attendees to have a view of the New Mexican plateau on their way there and back. This tour is a great way to actually physically put your hands on things that we will be talking about during the Sunday educational session. Transportation will be by mutual/shared rides. There is no charge for the tour, which is part of SFCC In-Service outreach.

Friday Dinner News

Friday evenings at our conferences, we usually have a reception and a dinner to allow people to network. We initiated a Meet the Fellows of the Academy dinner in Ann Arbor, and that was a nice opportunity to recognize efforts of long-serving dedicated Academy crew. Our survey let us know that it was appreciated.

At the winter conference we provide an opportunity for members and prospective members to meet the incoming Board and say thank you to the outgoing Board. The Friday evening of the winter conference is designated as the Awards Dinner during which time we will recognize members who have won recognition. This time we will celebrate the winner of the President's Award for Distinguished Service. The 2024 award winner is Joseph Leane, a current Past President of the Academy. Joe has put a lot of work into making sure the Academy continues to succeed, having worked hard to keep the ship afloat during recent difficult times for the Academy. We all appreciate Joe's work and are looking forward to a plated dinner with him on Friday evening.

Feedback from Attendees

We rated 4.56 out of 5 for Overall Value at Ann Arbor, with almost half of attendees responding. We know our communications to members and potential prospects are working, with high interactions from our much improved posts. We hear our attendees: PDH availability and Educational Content are cited evenly as motivating factors (30%), and Networking Opportunities are important at 20%.

The single best part of the event? "Meeting the members and absorbing the forensic mindset with people who are doing similar things as me with their careers." And of course, "I like being welcomed as a first time attendee. It made me feel welcome."

We will continue to listen and improve our offering, and look forward to the day when the content can be disseminated to more interested parties.



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Next Conference: Ottawa!

Next steps will involve the planning of the Ottawa Ontario Canada conference to be held on July 11 to 13, 2025. We are seeking good education educational topics, and I have asked Bart Kemper to compose a panel on the Titan Submarine investigation for Sunday. We will attempt to add Transport Canada personnel to the panel since this incident took place off the continental shelf of Newfoundland.

Get involved with the ad hoc organizing committee if you feel strongly about a topic that needs to be discussed!

Assistant Conference Coordinator is Being Sought

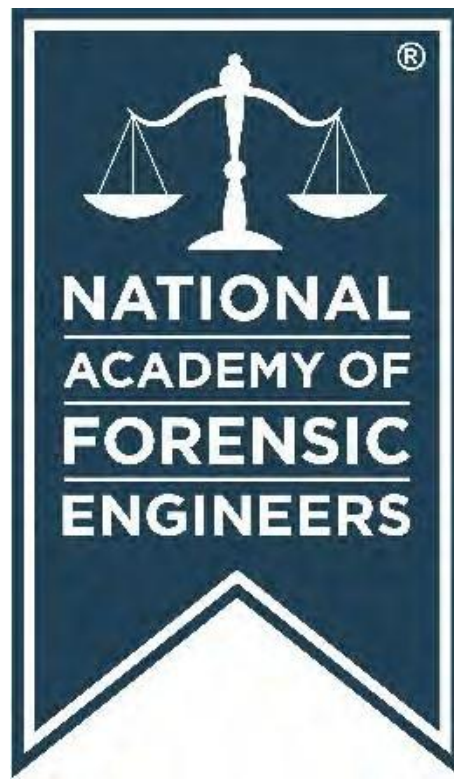
As the Conference Coordinator, I've enjoyed helping the Academy flourish by selecting themes, and making sure that the people in the Education Committee and Technical Committee in have the support they need since organizing and running conferences are a major part of the Academy.

I am now looking for someone, wishing to learn and develop these skills, to participate and assume some of these duties in a background role, as I move myself out of the position and take on more responsibilities as a Senior Vice President of the Academy in 2025. As a time commitment, it is roughly twenty hours per year, and you work closing with the Executive Director.

Respectfully submitted,

Daniel Couture, PEng, DFE, FEC
Vice President 2024
Conference Coordinator

CONTINUING PROFESSIONAL DEVELOPMENT





1420 King Street
Alexandria, VA 22314-2794

Tel: 703-684-2845
Fax: 703-836-4875

WWW.NAFE.ORG

January 8, 2025

Memorandum

To: NAFE Board of Directors

From: Joseph Leane, DFE, CPD Committee Chair

Re: Continuing Professional Development (CPD) Committee Report

The CPD Committee shall distribute record keeping forms to the membership within a reasonable time prior to the annual reporting deadline stated in Appendix 2. The CPD Committee shall receive record and analyze CPD data supplied by the membership and advise each member of the results of the analysis within the deadline stated in Appendix 2.

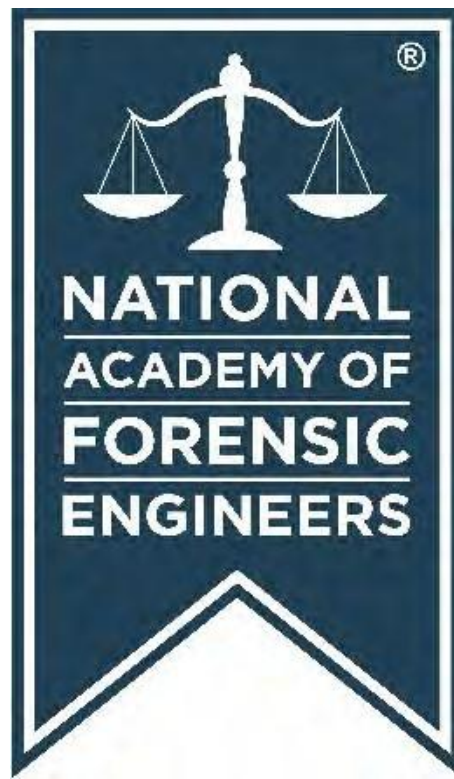
The NAFE Continuing Professional Development (CPD) procedures are described in Appendix 2 of the Bylaws. The member CPD credit submission, analysis and reporting process occurs via the online form. That Appendix requires a Member, a Senior Member, or a Fellow maintain a minimum CPD balance of 100 credits, and an Associate Member maintain a minimum CPD balance of 50 credits, from the previous five years (Items 3 and 4). On or before January 7 of each year, each Associate Member, Member, Senior Member and Fellow shall submit a tally listing the CPD credits earned during the previous year. The Appendix further states members (all the above membership grades) who do not meet the CPD requirements for more than 6 months (and are not excepted) shall be automatically severed from membership status and certification previously attained. However, they may transfer to a non-member, non-certified status (Item 5). Members that are not in compliance with the CPD requirements are identified as not current.

The 2024 CPD credit submission was due January 7, 2024. Members received two email notices instructing them to submit the CPD credits prior to the January 7 deadline. As of the deadline, 34 members did not meet the CPD requirements. A reminder email will be sent to those members advising them of their status and encouraging them to submit the credits prior to the expiration of the six-month grace period. As a comparison, this time last year 94 members did not meet the requirements.

Please contact me with any comments or questions. Thank you.

Joseph Leane, P.E., D.F.E.
CPD Committee Chair

CONTRACT DOCUMENTS



Report of the Contracts Committee

1 message

Daniel Couture <daniel.couture@arconforensics.com>
Reply-To: daniel.couture@arconforensics.com
To: Amanda Hendley <nafe@theassociationcatalyst.com>
Cc: NAFE President <president@nafe.org>

Wed, Dec 11, 2024 at 10:26 PM

Dear Board of Directors of the Academy,

I am pleased to present the Contracts Committee report for 2024.

For a variety of reasons, the Contracts Committee has not met over the past year.

There was no follow up to the brief discussions in Daytona Beach about the historical records and prior contract 'pro forma' developed by the Academy. It had been suggested that these be subject to a triage, followed by an update to reflect current-day business practices, for the benefit of our Members.

We suggest that some attention be given to this item in the next year, because a streamlined professionally-formatted document would certainly be useful to those joining the forensic engineering business.

Otherwise, there is nothing pressing on our docket, and we have not had any urgent enquiries from the ranks of the Academy.

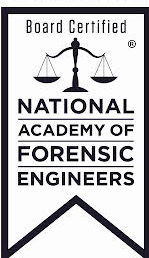
We will continue to be available in the case that changes.

Sincerely,

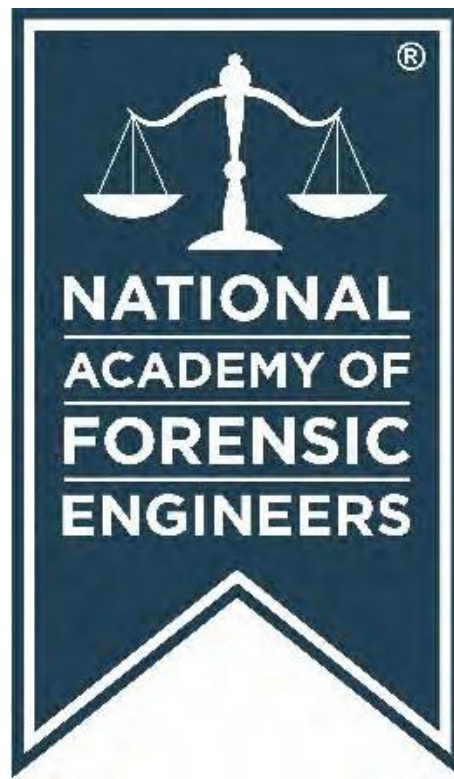
Daniel P. Couture, DFE

Vice President; Senior Member 951

SENIOR MEMBER



EDUCATION





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January 13, 2025

To: To NAFE Board of Directors
From: Zohaib A. Alvi, M.Eng., P.E., ENV-SP, DFE
Re: Education Committee Report

The 2025 Winter Conference Educational Program came together with immense help from Dan Couture and Amanda Hendley. The program includes six total presentations, including one session on ethics, one mock trial, two on solar topics, and two on practice issues. Mock trials are always a welcome presentation, and highly demanded by our attendees and membership. Presentations on practice issues are also requested from the membership, as they practically assist their work and business. Although some of the presentations slides were received late, I am confident that the NAFE team will bring this together as a team.

I will be present at the 2025 Winter conference, and I am looking forward to the feedback from the presenters and attendees so that NAFE can improve on future offerings.

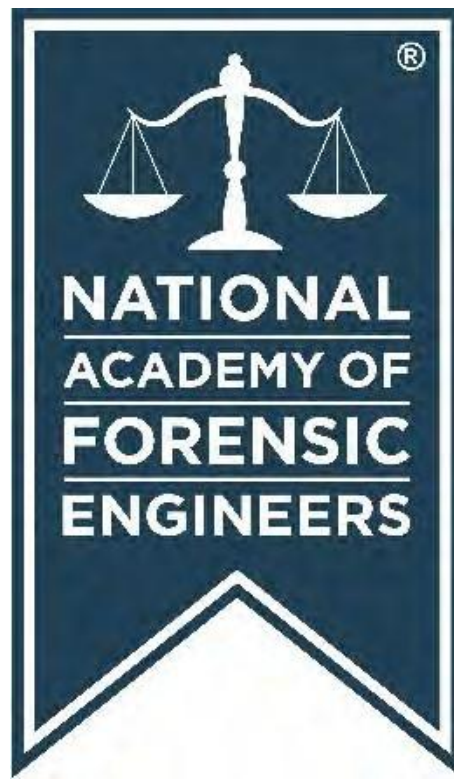
Sincerely,

NATIONAL ACADEMY OF FORENSIC ENGINEERS

Zohaib A. Alvi, M.Eng., P.E., ENV-SP, DFE

Education Chair

ETHICS





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Alexandria, VA 22314-2794
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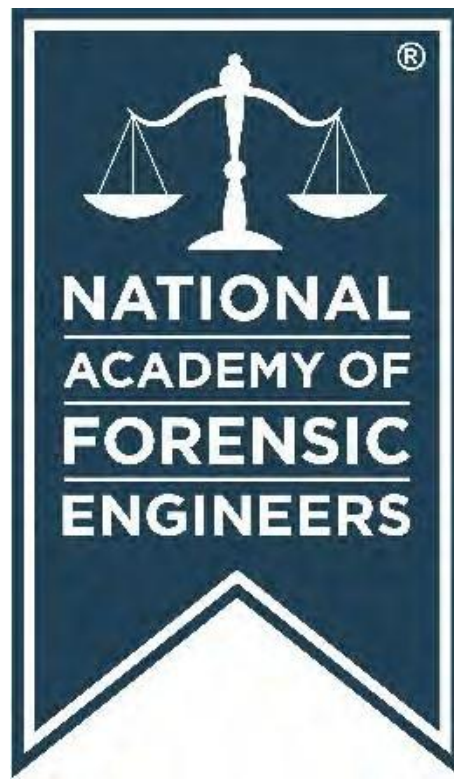
January 6, 2025

To: NAFE Board of Directors
From: Samuel G. Sudler III, P.E., IntPE, DFE (Chairman, Ethics Committee)
Re: Ethics Committee Report

Since the NAFE Summer meeting the Ethics Committee has not received any ethical complaints to be addressed by the Ethics Committee and that concludes the Ethics Committee Report.

Samuel G. Sudler III, P.E., IntPE, DFE
NAFE Past President
886S

FINANCE





1266 W Paces Ferry Rd NW
Atlanta, GA 30327

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Dear Board of Directors,

Amanda and I are preparing the 2025 budget. The past 2 budgets have included percentage increases based on the 2022 actual income and expenses. Because 2022 was still impacted by COVID for conference attendance and expenses, the budget should be re-evaluated to reflect more current economic conditions. To that end, Amanda and I will review the 2019 numbers (pre-COVID) and 2024 numbers (first post-COVID positive net income) to develop the 2025 budget. The revised budget will be finalized no later than the end of the first quarter 2025.

In general, the membership and conference revenue will increase due to our higher membership numbers and conference attendance. Speaker and director fees will decrease due to organizational restructuring and conference speaker strategies.

The 2025 budget will also align with the strategic plan finalized last fiscal year with respect to fiscal goals and metrics.

Best,

Tonja Koob Marking, PhD, PE, BC.WRE, BC.NE, DFE, MBA, PMP, CFM, F.ASCE

President

Gaea Consultants, LLC

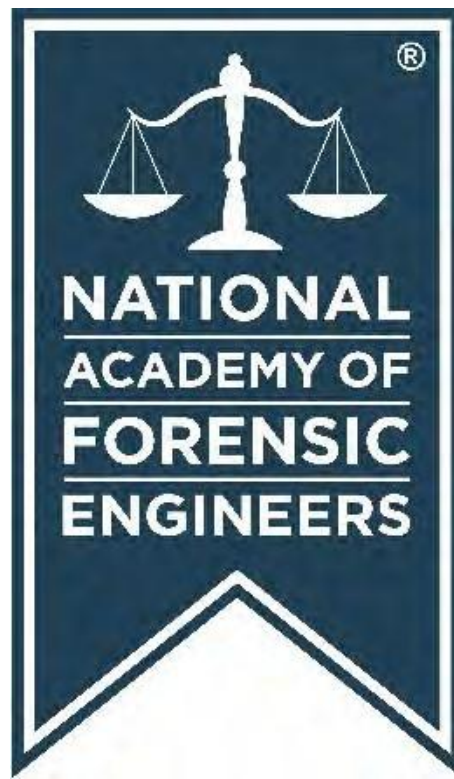
536 Washington Avenue, New Orleans, LA 70130

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f. 504.962.5362

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INSPECTOR OF ELECTIONS and AUDIT





Engineering Applied To Jurisprudence

MICHAEL KRAVITZ, PE, DFE CONSULTING ENGINEER
484 West 43rd Street, Suite 32S, New York, NY 10036 Tel: 917.885.9000

P.O. Box 1179, Margaretville, NY 12455 Tel: 917.885.9000

Website: <http://www.forensic-civilengineer.com>

Cell: 917.885.9000

Email: mckravitz@gmail.com

November 19, 2024

Ms. Amanda Hendley
Executive Director
National Academy of Forensic Engineers
1266 W Paces Ferry Road #141
Atlanta, GA 30327-2794

Re: Request for Inspector of Elections and Audit – Kravitz

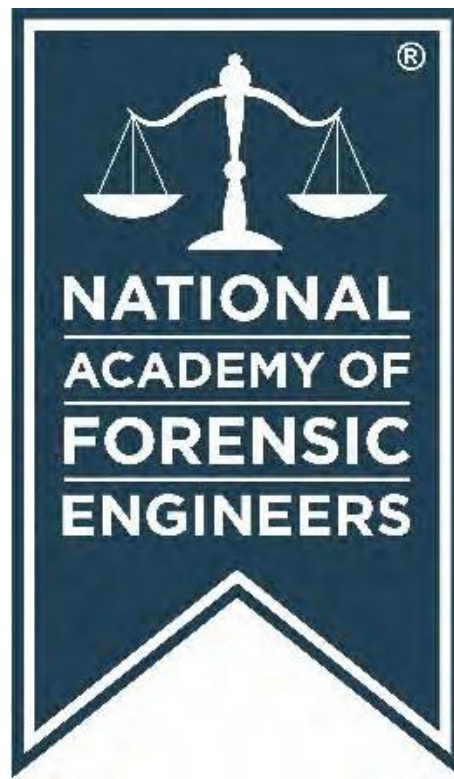
Dear Ms. Hendley:

There has been no activity for either the Audit Committee or the Inspection of Elections.

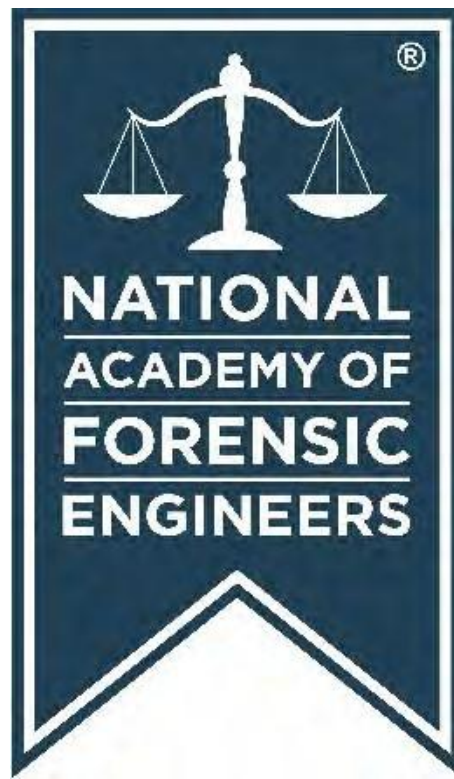
Sincerely,

Michael Kravitz, PE, DFE

INSURANCE



LEGISLATIVE





November 27, 2024

National Academy of Forensic Engineers
Admission Committee Report

The Admission Committee has not formally meet; however, through Amanda's hard work and diligence, admission applications have been processed and approved in a timely manner. Membership is growing. We need to thank Amanda, Joe Leane, Liberty Janson and Sam Sudler for their strong, diligent, efforts are processing applications and pushing membership number in 2024.

Amanda has been working on the online application and application process to clarify key requirements of required documentation and references. She has been working on developing a method of allowing non-member applicants that may not be acquainted with NAFE or NAFE members, to obtain the required references for application.

Membership as of January 1, 2024;

MEMBERSHIP TYPE	MEMBER COUNT
Affiliate	59
Student	1
Associate	38
Member	120
Senior	120
Fellow	56
International	2
Grand Total	396

As of July 4, 2024, the NAFE membership make-up is as follows;

MEMBERSHIP TYPE	MEMBER COUNT
Affiliate	69
Student	3
Associate	41
Member	127
Senior	123
Fellow	56
International	2
Grand Total	421

As of November 27, 2024, the NAFE membership make-up is as follows;

MEMBERSHIP TYPE	MEMBER COUNT
Affiliate	80
Student	6
Associate	44
Member	131
Senior	124
Fellow	57
International	2
Grand Total	444

Membership Summary

	1-Jan-24	4-Jul-24	27-Nov-24	
Membership Type	Member Count	Member Count	Member Count	Difference
Affiliate	59	69	80	11
Student	1	3	6	3
Associate	38	41	44	3
Member	120	127	131	4
Senior	120	123	124	1
Fellow	56	56	57	0
International	2	2	2	0
	396	421	444	252
Increase YTD				12.1%

In January 2024, President Pietropaolo requested that I as the incoming Admissions Chair, Amanda Hendley as our new Executive Director and her staff be looped in immediately on the process so that they can lend support and assist in managing the process and providing assistance on following up and contacting applicants. The procedure of reviewing applications and processing these applications has significantly been streamlined due to the efforts of Mitch Maifeld and his IT committee's work on bringing us up to speed of the admissions process and use of the CivCRM system. As committee chair, I want to thank Mitch and Amanda for their hard work.

Further, the entire committee should review the NAFE Member Structure Matrix below, so they completely understand the requirements for member grades.

Admittance:	Application	Application Fee	References (see note below)	E.I.T. (Engineering Intern) or PhD Engineering	Engineering License (US-PE or Canadian-PEng)	NSPE Membership	National / International Technical Society Membership	Years of Professional Experience (Min)	Years of Forensic experience (Min)	Forensic Engineer Cases Prepared (Min)	Court Room Testimony (Min)	Years as Member or Senior Member	NAFE Papers presented + active NAFE participation
Board Certified Diplomate													
Fellow	General	N/A	3 Fellows +1	N/A	Required	Required	Required	20	15	50	10	4	2
Senior Member		N/A	3	N/A	Required	Required	Required	12	5	10	5	N/A	N/A
Member		N/A	2	N/A	Required	Required	Required	5	2	2	2	N/A	N/A
Non-Board Certified Diplomate													
Associate Member	General	N/A	2	EIT, EI, PE, PEEng, IA, AI, RA (AIA), LSIT or LS/PS	NSPE, AIA or NSPS		Required	4	2	2	N/A	N/A	N/A
Affiliate	Affiliate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Student Affiliate		N/A	N/A	N/A	N/A	Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Notes: NAFE member references must be from members at, or above, the grade requested Upgrades only need additional references as required to fulfill requested grade requirements													

August 7-9, 2024, NSPE held their annual conference in Raleigh, NC. I attended the conference as an NSPE member and as a NAFE representative. I attended the NSPE Leadership Summit on behalf of NAFE. During the Summit, I was able to present NAFE to the NSPE state and national leadership, indicating the importance of partnership to support our joint members. NAFE had an exhibitor’s booth at the conference. NSPE provided the booth to NAFE at no charge. We had NAFE information available to inform NSPE members of NAFE’s vital mission to Forensic Engineering. I want to thank all the NAFE members present at the NSPE Conference and their continued support in NAFE.

Legislative Committee Report

The legislative committee has not met and has no activities currently. The committee request that all members of NAFE work with their state chapter of NSPE to stay informed of all legislative matters in their home state. If new matters are identified on a state or local level which impact the engineering or forensic engineering industries, they should bring them to the attention of the Legislative committee.

If you should have any concerns or questions, please do not hesitate to contact me.

Sincerely,

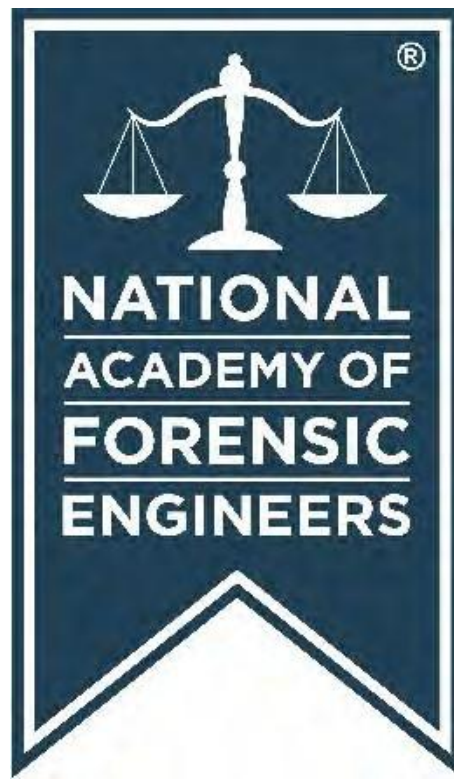
MEA Consulting Engineers, Inc.

Michael E. Aitken, P.E. F.NSPE, DFE, LEED AP O+M, CxA

Vice President



LONG RANGE PLANNING





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January 15, 2025

To: To NAFE Board of Directors
From: Liberty L. Janson, PE, NAFE
Re: Long-Range Planning Committee Report

At this time, neither the NAFE Board nor the larger Academy which we serve has a Long-Range Plan. The Long-Range Planning we previously set in place, known colloquially as NAFE 2025 or the Mark Levin Report, have been generally ignored and in some ways reversed since 2022 resulting in continued loss of engagement and value to the general dues-payer.

Since 2018, NAFE:

1. Made the Journal free to the public.
2. Spent over \$50,000 in fees and honorariums for outside speakers, eliminating opportunities for dues-payers to present.
3. Decreased general practice content in favor of technical content.
4. Established, then eliminated virtual conferences which were largely attended by those who are unable to afford the time or fees associated with in-person conferences.

No new programs have been provided in place of these lost benefits.

2023 Strategic Planning:

On July 13 and 14, 2023, the NAFE Board held a NAFE Planning meeting in Kansas City. The meeting was attended by the 2023 Board of Directors as well as additional members critical to the past, present, and future Academy. At that time, based on the advice of the then Executive Director, Monica, Schulz, CAE, the Board hired a professional Strategic Planner, self-described Principal Futurist Shelly Alcorn. The board paid \$9000 for these services in addition to the costs of meeting space and lunches which have not been independently reported by NSPE leadership.

The brainstorming session resulted in three “pillars” of the Academy Per the January 2024 President’s Report, *“Those pillars were then refined and a draft framework will be approved at the January 19th board meeting. Then the next step in the process is to then obtain membership input as we finalize the plan.”* The final Pillars as approved by the Board following membership input are:

- Pillar One: Collaborate for the thrill of curiosity
Pillar Two: Foster opportunities for learning, networking, and professional engagements
Pillar Three: Integrate practical knowledge beyond technical skills for present and future forensic engineers.

To date, no actionable strategic plan has been created.

Mission Statement:

While not a direct correlation, it is noteworthy that the Pillars, particularly Pillar Three, generally restate the long-existing NAFE Mission Statement which indicates:

“The National Academy of Forensic Engineers and its members are committed to:

- *Serving the public by advancing the ethical and professional practice of forensic engineering;*
- *Serving the jurisprudential system by certifying individuals having achieved expertise in forensic engineering;*
- *Serving Academy members and furthering the development of forensic engineers through education and the publication of peer-reviewed technical literature.”*

NAFE 2025:

The preceding NAFE Board of Directors Planning Session was held on January 11 and 12, 2018. At that time, the Board titled its vision as NAFE 2025. NAFE 2025 outlined significant and actionable goals for the Academy. These long-term goals and needs of the Academy appeared on the agenda of nearly every Leadership meeting between January 2018 and July 2022.

The current status of these goals are listed below:

CONTINUE ON-LINE ENGAGEMENT:

- **Virtual Conference:**
 - Initial attempts to create a virtual conference and/or webinar system through ClickMeeting and other earlier platforms were blocked.
 - Out of necessity and a desire to maintain connection during the Covid19 Pandemic, NAFE held a profitable and well attended virtual conference in July 2020. This conference included only non-technical content as the Journal committee refused to participate.
 - Both income and attendance increased when a second remote conference, now including technical content, was held in January 2021. Based on attendance, it was clear that an audience for virtual content existed and was largely separate from the typical in-person conference attendees.
 - The Academy returned to in person meetings in July 2021. This meeting in Providence, RI was produced as a hybrid, synchronous conference with opportunities for members to attend both in person and remotely. Pricing was the same for all attendees. This format did not retain the virtual only attendees gained in July 2020 and January 2021.
 - All subsequent meetings were in person. All subsequent attempts to develop an online library, virtual conferences, or similar remote content have been blocked.
 - NSPE maintains a significant library of webinars, on-demand content, and remote member interaction. Despite numerous requests and attempts to utilize this platform, NSPE continues to deny NAFE access to this successful, profitable resource.

- **Linked In**
 - NAFE developed and maintains a presence on LinkedIn including 1169 followers.
 - Post impressions range dramatically between dozens and over 500 views depending on the content. Highest impressions are tied to our members who are independently active on LinkedIn and Conference announcements.
 - NAFE averages 5 new visitors a week. We are not currently tracking any analytics related to conversion of impressions and visitors to engagement.
- **Journal**
 - Please refer to the Journal Committee Report for information on on-going efforts to expand both the accessibility and reputation of the Journal.
 - To facilitate this exposure, the Journal is now fully free to the public which eliminated a previous membership benefit. No corresponding benefit has been created.
 - On-going member discussion indicates significant frustration with the journal submission, review, and approval process. Complaints relate to the both the cumbersome OJS system and editor gatekeeping.
- **Website**
 - The website was completely redesigned, relocated, and reimagined, including all behind the scenes data management, forms, and communications.
 - As a result, all general functions of the Academy now moves through the website and regularly fall to the Website committee. Previously independent functions maintained by diverse committees fall to a handful of individuals who are unpaid, underappreciated by the general membership, and burned out. This system is not sustainable.

NSPE:

- NAFE 2025 asked the Board to:
 - Review relationship with NSPE and find a means to engage at all levels
 - NAFE is a chartered affinity group of NSPE. This term is not defined in any governing document for either organization.
 - NAFE is referenced once on the NSPE website three screens down, under Membership benefits:
 - *“Partnering organizations like [Engineers Week\(link is external\)](#), [MATHCOUNTS\(link is external\)](#), [NICET\(link is external\)](#), [NABIE\(link is external\)](#) , and [NAFE\(link is external\)](#), along with public outreach activities, demonstrate the positive impact engineering has on everyday lives.”*
 - Due to personnel changes, extremely poor service, and continued efforts to prevent NAFE access to resources, NAFE terminated the Executive Director Services Contract with NSPE.
 - Review relationship with NSPE and NCEES, regarding cost/benefit and impact on members.
 - NAFE is an independent member of NCEES and attends annual meetings regarding licensure.
 - Continue to engage NSPE members through webinar applications and support of the NSPE Education staff.

- Then Executive Director, Rebecca Bowman, ensured that the 2022 Summer Conference was advertised to NSPE members. All previous and subsequent advertisements were paid.
- NSPE has not advertised the NAFE conferences since termination of the Executive Director Contract.
- NAFE members presented on Forensic Engineering topics at PECon in 2019 as well as:
 - Kemper, Professional Engineering Ethics, Risk, and Liability with Technology, Webinar 2023 (NAFE mentioned only in speaker bio)
 - Bowman, Ethical Insights: Lessons in Reporting, Webinar 2023 (NAFE mentioned only in speaker bio)
 - Bowman, Florida International University Pedestrian Bridge Failure, A Study in Structural Ethics or Ethical Structures, Webinar 2023 (NAFE mentioned only in speaker bio)
 - Bowman, Ethics of the Cutting Edge, Webinar 2023 (NAFE mentioned only in speaker bio)
- NSPE annually hosts the \$80 webinar presented by Dr. David T. Williams, who has no relationship with NAFE.
- NSPE hosted the 2022 Webinar Forensic Engineering Investigation of Failures presented by Mohammad Ayub, PE, SE who has no relationship with NAFE.
- NSPE hosted the 2023 Webinar Forensic Engineering Investigation of Failures presented by Sem-Train, LLC which has no relationship with NAFE.
- Increase presence in PE magazine including proposed standard column.
 - Searching the NSPE site demonstrates that NAFE is discussed only in reference to specific members of the Academy. The most recent mention of NAFE in PE magizing was [In Memoriam: Past President Marvin Specter, Founder of NAFE](#) published in May 2019.
- NSPE continues to deny NAFE access to resources and promote non-NAFE forensic programs.

GROW THE ACADEMY:

- **Recruitment:**
 - Membership has grown from 458 in 2018 to 470 (12%).
 - Significant fluctuations in membership numbers occurred just prior to 2018 due to an effort clean-up the membership records to include only current, living members.
 - Membership peaked in July 2020 at 481. Current membership is a 3% drop from this peak.
 - Membership fell sharply through the Covid19 Pandemic hitting a low of 368 in July 2022. Current membership is a 28% recovery from this loss.
 - Most increases occurred in Member and Senior member categories, indicating retention of members who are currently both practicing and testifying.

- Most applications are in the Affiliate category. We do not currently have metrics to indicate the conversion rate and retention rate at this level appear so low.
 - Surveys and attendance indicate standard advertising is not an effective means of reaching the broader Forensic Engineering industry. Consider adjusting funding and efforts to media that have a greater return. Utilize member surveys and available click-rate data to identify those alternative means.
 - The impact of more personal interactions, including speaking engagements with other professional groups, has not yet been measured. It is believed that this is an effective means of recruitment, but we need to develop metrics to determine the actual impact and determine the most effective demographics to engage.
 - The established standard presentation has been delivered a handful of times by a number of NAFE leaders.
 - The Introduction to Forensics presentation will be recorded during the 2020 Virtual Conference. There are several potential recruitment uses for this video. Similar presentations have now been given to other organizations. Determine means to measure the exposure and membership growth tied to these efforts.
 - Significant effort to improve our website requires regular content update. While major work was done through 2020 and 2021, this must be an on-going effort to keep the site fresh, informative, and engaging. This same effort will improve our SEO.
 - Continued effort to improve our outward facing communication should continuously refer back to Mark Levine's report.
- **Retention:**
 - We do not currently have significant data on the retention rates, though growth appears to generally indicate retention.
 - NAFE 2025 asks that the Board consider the following which have not occurred:
 - Determine and create means to better engage our due-payers throughout the year.
 - Build up and support the mentorship program to help new dues-payers through the first years of practice.
 - Expand committees. Consider immediate engagement of new members as well as efforts to engage long-term inactive members
 - Create and assign task-forces to address new Academy needs or engagement efforts
 - Establish a calendar and communication system to promote membership upgrades
 - Better engage interest committees to expand journal and conference involvement.
 - Develop committee chair successors.

Finally, the NAFE 2025 effort informed the attached August 15, 2019 Member Audit Report prepared by Mark Levin, CAE, CSP. This report includes further detailed recommendations to address the ongoing decrease in services and value to the membership.

Long-Range Planning is historically chaired by the President-Elect in an effort to shape and inform their upcoming Presidential term. I strongly urge Ms. Koob Marking and the rising Vice Presidents to consider the current state of the Academy as well as the NAFE 2025 goals in planning and establishing their plans for the future of the Academy.

Sincerely,

NATIONAL ACADEMY OF FORENSIC ENGINEERS

A handwritten signature in black ink, appearing to read 'Liberty L. Janson', with a long horizontal flourish extending to the right.

Liberty L. Janson, PE, DFE

Membership Audit Report to the National Academy of Forensic Engineers

(August 15, 2019)

B.A.I., Inc. is pleased to present this Membership Audit Report to the National Academy of Forensic Engineers (NAFE). Any questions should be sent directly to Mark Levin, CAE, CSP, who conducted the analysis.

Program Elements

The program included (but was not limited to):

- a) onsite visits and discussions with NAFE staff; **(completed)**
- b) attendance at the 2019 NAFE Summer Conference Board of Directors Meeting and dinner or other event gathering of NAFE leaders the evening prior (Thursday, July 26 thru Friday July 27, 2019) in Denver, Colorado in order to make an initial presentation to the NAFE Board, respond to questions and interact with the any NAFE membership in attendance; **(completed)**
- c) a review and evaluation of all membership-related materials, including printed materials, website content (related to membership), publications, and communications, etc., and providing content revisions for membership marketing materials as necessary; **(completed)**
- d) a review of office/administrative procedures related to membership/member service; **(completed)**
- e) a written report on these audit findings, to include observations, assessments, and recommendations for improvements of membership recruitment and retention materials, membership marketing and retention efforts, member communications, and membership administration; **(completed)**
- f) working with other NAFE leaders and consultants to provide any needed membership data, including member surveys, etc. **(completed)**
- g) an oral summary of audit findings to staff and/or leaders; **(completed)**
- h) Meetings (in-person or telephone) with any member committees working on this project; and, **(completed)**
- i) Ongoing communications with, and support for, all NAFE staff and volunteers involved in this project. **(continuing)**

Deliverables

Based on the activities outline above, the program was designed to produce the following deliverables:

- 1) A membership audit and evaluation: a comprehensive (written and oral) evaluation and report of current membership acquisition, engagement, and retention efforts in the areas of concern; **(Included in following report)**
- 2) Action plan: assistance in preparing a detailed set of recommendations to the staff and volunteer leadership for to assure long-term membership success; **(included in following report)**

3) Ongoing assistance to staff and volunteer leaders during the term of agreement
(**continuing**)

Background

NAFE was formed in 1982 to advance the art and skill of engineers who serve as engineering consultants to members of the legal profession and as expert witnesses in courts of law, arbitration proceedings and administrative adjudication proceedings.

NAFE was also formed to identify and bring together professional engineers having qualifications and expertise as practicing forensic engineers to further their continuing education and promote high standards of professional ethics and excellence of practice.

The NAFE is formally affiliated with the National Society of Professional Engineers (NSPE) and has adopted the NSPE Code of Ethics.

Membership Issues

1. **Membership in NAFE has remained virtually flat over the past five years** (474 members in 2015: 475 members (YTD) in 2019). This is not unusual with professional organizations in general over that period, but it does present reasons for concern for the future.
2. **Member retention is a growing concern.** While new member acquisition is basically replacing members that are dropping out, the fastest growing demographic in the NAFE membership profile is “Former Members.” Of greatest concern are those members who join for only 1-2 years and then leave.
3. **Aging membership.** Because NAFE membership requirements are very stringent and contain minimum experience levels that may take a number of years in practice for potential members to reach, it is understandable that the average age of NAFE members is going to be higher than the norm for similar professional groups. This can cause some problems in branding and recruitment if NAFE is seen as an organization for *older* practitioners rather than as the organization for practitioners with a certain level of expertise (i.e. the leaders in the field). In addition, the ability to attract younger (in relation to the current members) members affects the future volunteer leadership system in NAFE.
4. **Limited Value Perception for those who do not attend events/Conferences.** Although there are many benefits of NAFE membership, there is a feeling among the leadership (Board) that many members who do not participate in the Conferences and other events have trouble identifying the value of NAFE membership.
5. **NSPE affiliation requirement.** The NSPE requirement is one of the cornerstones of NAFE’s history, however it does mean extra dues, extra paperwork, and extra decision-making by non-NSPE members who want to join NAFE.

6. **Lack of marketing outreach.** NAFE is blessed with excellent professional and volunteer leadership in many ways, but membership in NAFE has been, for the most part, an administrative function vs. a marketing function. When potential members apply there is a process for reviewing and approving various levels of membership but until very recently it has been a case of potential members either knowing about NAFE or attending a Conference prior to applying. This makes it difficult to get a steady flow of prospects into the database.

Methodology

In order to assess the various aspects of NAFE's membership management, several methods were used.

- 1) Interviews with NAFE staff
- 2) Interviews with NAFE volunteer leadership (Board)
- 3) Interviews with membership-related committee chairs
- 4) Reviewing the membership-related content of the NAFE website
- 5) Talking with/facilitating discussion with NAFE National leaders at the 2019 Summer Conference
- 6) "Mystery Shopping" – joining NAFE under an alias to enable evaluation of membership communications and reinforcement by receiving them just as a new member would

Evaluation and Recommendations

The focus of the analysis was directed toward these aspects of NAFE membership development:

- a. **New Member Recruitment**
- b. **Intake/on boarding of new members**
- c. **Member Engagement**
- d. **Retention**
- e. **Marketing/Branding**
- f. **Administration**
- g. **Website coordination**

New Member Recruitment

As was mentioned above, member recruitment has been steady but barely keeping membership level, due to dropped members. The main sources of new members, the website and non-member attendees, generate some excellent leads but the follow up on these leads is not producing the numbers it could/should. Leaders have estimated that there may be as many as 1,000 (or more) engineers that currently qualify for NAFE membership who are not members.

The most effective way to recruit new members for NAFE (or any other organization) is through word-of-mouth recruitment. During the assessment period, it was noted that there may be some underlying reasons why current members are not more active in reaching out to prospective members. These include: engineers (as a rule) are not necessarily "sales" oriented, despite the fact that they market their services to clients; some members are uncertain of how to present

NAFE's membership benefits effectively; and there may be some reluctance to recruit people or firms which may become competitors in the marketplace.

Recommendations

There are two basic ways to get more prospective members into the NAFE membership system: - they find NAFE (via website or events); or NAFE finds them (by reaching out via member contact or effective marketing)

- 1. Increase website (membership) traffic.** Since the website is a prime source of members and potential members, NAFE should re-evaluate its SEO and Google ads strategies. It may be worth hiring an outside web marketing person to guide this effort. Another (less expensive) option is to find members, member firms, or (perhaps) someone within the NSPE organization with the appropriate skills, to give advice on how to do this.

NAFE should also be concentrating on raising its internet/website presence to the industries and professions which use the services of NAFE members: legal, governmental, insurance, construction, real estate, etc. This does two things: 1) it will encourage these key decision-makers to ask "are you a member of NAFE?" which will, in turn get those non-members to think about joining; and 2) it will be another benefit of NAFE membership to discuss with potential members.

As was discussed at the Summer Conference, no one is looking to join another organization. They are looking for clients and the ability to solve clients' problems. That is the basis on which NAFE should address its internet presence.

- 2. Raise the percentage of non-member attendees and non-member users of other NAFE programs and services who are converted to members.** These are among the very best prospects for new members, because they have already shown interest in a NAFE benefit.
 - a. When non-members attend NAFE Conferences, include the first year's dues as part of their registration fee. The 50% discount currently offered is more than a year's dues so it is no financial burden on NAFE.
 - b. Offer to credit the non-member differential charged to purchase other NAFE publications, products, or programs toward the first year's dues
 - c. When communicating with these non-member participants, always mention the program or product they have already used. Rather than sending a form letter requesting that they join, start off by saying something like "Thank you for attending our program on (subject). This is just a small sample of the benefits our members get on a continuous basis," etc.
- 3. Increase member-to-prospect recruitment efforts.** Give members the tools needed to feel comfortable asking others to join.
 - a. Develop a member recruitment guide for members, suggesting the best potential members to ask, how to describe the benefits of NAFE membership, etc.
 - b. Offer current members incentives for recruiting new members and also for referring potential members to NAFE Headquarters (or the Membership Committee).
 - c. Publicize the names of members who do recruit new members in NAFE member communications and on the NAFE website. This provides recognition to those who recruit and (hopefully) inspires others to so.

- d. Have an event (reception, etc.) at the NAFE Summer and Winter Conference that is just for members who have recruited a new member in the past year.
- e. Create a Committee to focus on trying to get former members to reinstate their NAFE membership. Former members are a unique prospect group and should be approached on the basis of what is new/different now vs. when they were members.
- f. Continue participating in the Conferences of other organizations (NSPE, ASCE, etc.) where potential members may be attendees and/or exhibitors. Develop a specific follow up plan for leads generated from these events.

4. Review & revise the membership section of the website

The membership part of the website needs a lot of work (more on this under the website recommendations). This looks (from a layperson's view) like an administrative nightmare for applicants. The type is too small, there is no flow, not all of the links work, the matrix is daunting, it's the equivalent of 3-4 pages long before even starting to fill anything out, some of the information doesn't fit the page, etc., etc.

A key to membership growth is making membership as easy as possible. This does not mean lowering any requirements for membership. It is a matter of presentation and user friendliness.

Intake/on-boarding of New Members

The first few months of membership are critical to keeping new members after the first year. This will be even more critical as NAFE (hopefully) begins bringing in more new members as a result of this analysis. Here are some suggestions, based in part by the "mystery shopping" observations.

Recommendations

1. **Revise the new member welcome letter.** It currently is little more than a reminder of benefits (which the prospect was already told about during recruitment) and then a description of how to sign in to the website and other administrative procedures. This letter should start off by telling the new member what a great decision he/she made by joining NAFE, and what he/she can look forward to. Then, acknowledge that as a new member they probably have a number of questions about what's next, and tell them how to answers, etc. Make the welcome letter all about the new member first, then talk more about NAFE.
2. **Have some type of personal contact to welcome new members (in addition to the welcome letter).** Have an officer or Membership Committee member call or email each new member. During this contact, ask questions of the new members about their business or career goals, and how NAFE can help them achieve those goals.
3. **Consider adding a New Member page to the website.** This page could simply be an FAQ-style page for new members.
4. **Be especially conscious of new members who join because of an incentive.** As mentioned above, incentives to join such as reduced dues or Conference fees are great to attract new members, but this can come back to be a problem when they are asked to renew a year later. This second year of membership will not include the same

incentive, so they are going to pay more for the second year. Be prepared to deal with this.

5. **Continue having new members identified at NAFE Conferences.** Have special ribbons on name tags of New Members and First Time Attendees. Tell NAFE officers/leaders to seek these people out and make them feel welcome.
6. **Add a glossary of terms to new member information.** Don't assume new members are familiar with all of the acronyms that stream through NAFE's website, publications, etc.

Member Engagement

One of the big challenges is to find ways for members who don't attend the Conferences to get enough value in NAFE membership to justify the cost.

Recommendations

1. **Promote the non-Conference benefits of membership as heavily as the Conferences.** This doesn't mean you don't want everyone to attend Conference, but you'll never get *everyone* to attend (the % of members attending NAFE Conferences right now is excellent). Try to attach a **value** to each aspect of NAFE's benefits which don't require a physical presence (other than from an office or home office).
 - a. The **NAFE Yahoo** groups (from my non-engineering view) look like an excellent resource for members. These should be promoted not just as discussion groups but as one of the many ways NAFE membership can enhance your credibility (third party input). It's also another way to build partnerships in new areas.
 - b. Access to **the online directory** should be promoted as a one-stop guide to peer support and information.
 - c. **Recommended insurance programs** should be promoted as cost-effective ways to protect your business and your practice.
 - d. **Certification** is both a form of achievement and credibility and also a differentiator for clients.
 - e. The **NAFE library of peer-reviewed publications** provides one of NAFE's primary offerings of continuing education, as well as the ability for members to be recognized as a true leader of the forensic engineering field via being published
 - f. Etc., etc.

While this might sound like wordsmithing or promotional jargon, it's not. It's the truth, as we discussed in Denver. More importantly, none of the things listed above require anyone to get on a plane and go to meeting anywhere, yet they all provide value to members, if presented effectively.

2. **Engage members by asking their opinion.** We described in Denver a potential way to take targeted, short surveys to get more members (especially those who don't attend Conference) engaged in NAFE in an easy way. There are some guidelines for doing this effectively, but NAFE seems to have the kind of membership "culture" that could lend itself to this being a good opportunity to enhance the membership experience.

3. **Keep track of member engagement and identify non-active members early in the program year.** Target them for special communications (such as the survey mentioned above). Make personal contacts with those who don't respond to additional communications.

Member Retention

It's important to get a handle on exactly how well NAFE is currently doing in member retention in the various membership categories. The overall retention rate seems to be in the 85-90% range (which is good) but it would be worth a closer look at when and why the majority of these members are leaving. It would make it easier to set up a specific effort to retain those "at-risk" members at a higher rate. Even with a retention rate at a high level, NAFE is still challenged with replacing 45-50 dropped members with new members each year just to stay even. A focused retention effort could be moving NAFE back over the 500 level with just a small increase in the retention rate.

Recommendations

1. **Create a Member Retention Committee (or Subcommittee) with direct responsibility for member onboarding, engagement, and retention.**
2. **Where possible, customize and personalize member communications based on what is known about the individual member(s) or groups of members.** Try to avoid form letters and Dear Fellow Member letters.
3. **Offer members choices on how they receive communications from NAFE.** Younger members, especially, want to make those kinds of choices for themselves.
4. **Continue to identify ways to make new members and first-time attendees feel special at NAFE events.**
5. **Make member renewal as simple and quick as possible.**
6. **Have a pre-invoice letter sent outlining NAFE accomplishments.** This should be sent **prior** to the first renewal notice to members. They will then have been reminded of the value NAFE provides without having the renewal notice in front of them.

Marketing/Branding

Obviously, NAFE's reputation as an "exclusive" organization is one of the things that attracts engineers to it. "Exclusive" refers to the necessity to attain a certain level of certification, expertise, experience, etc. This makes NAFE membership a goal for many. However, NAFE needs to be careful not to allow the "exclusive" aspect of its reputation be a barrier to membership.

NAFE has this excellent reputation among most of those who are *aware* of it, but not enough engineers are aware of the opportunities in the field or NAFE's role in promoting both the science and the practice of forensic engineering. There are some engineers who probably qualify for membership but haven't joined because of lack of exposure to NAFE, affiliation with another engineering organization (including NSPE) that they feel meets their needs, or they have been contacted by NAFE and didn't see enough value to join.

Recommendations

1. Create a dialogue with NSPE to **find additional ways to use the NSPE membership requirement in NAFE as an advantage of NAFE membership, not a barrier to it.** Include phrases like “as an NSPE member, you already meet one of the most important qualifications to join NSPE,” or, for non-NSPE members, “your membership in NAFE will also entail becoming an NSPE member, allowing you to benefit from two of the leading professional associations in the engineering field.”
2. **Contact other professional organizations which are “stakeholders” for NAFE and offer to provide educational programming for their Conferences.** These organizations are always looking for the best quality educational sessions for their own members, and the exposure to these groups will expand NAFE’s brand and value message. Again, in addition to engineering societies, think of legal organizations, insurance, real estate, etc. There are hundreds of these groups at the National, state, and local levels.
3. **Continue expanding the use of social media to create awareness of NAFE and its members.** As the average age of NAFE members drops (due to retirements, new practitioners entering the field, etc.,) social media will become more of the norm for members and prospects and less of something that has to be learned. These members/prospects will have been using social media since their undergraduate days, and they will expect their professional organization to provide outlets for using it to enhance their education and businesses.
4. Encourage members, especially leaders, to **include their NAFE membership and leadership positions in their introductions, biographies, signatures on their emails, business cards, etc.**
5. **Set quality control standards on everything NAFE does.** As discussed in Denver, NAFE’s brand is, in part, determined by first impressions. Quality control is an important part of any organization’s brand. NAFE is probably held to an even higher standard than many other groups because of its prestige, its membership (engineers are very detail-oriented), and its “culture” (reflecting what its members do).

Administration

Due to NAFE’s limited budget, many of the functions that would normally be done by staff members in similar organizations are handled by volunteers in NAFE. Fortunately, NAFE is blessed with a cadre of experienced members willing to put in the time to produce the many things NAFE offers to its members and the profession.

This can also create a situation where there is sometimes a lack centralized oversight (see quality control, above); volunteers can get burned out by having to fulfill NAFE commitments while running their businesses/practices; and NAFE is limited in its ability to add new programs and services in its attempt to fulfill its mission.

By growing its membership, NAFE can add additional financial and volunteer resources to NAFE's management. By providing funds to perhaps add staff support, or to outsource programs and functions currently being done entirely by volunteers, this raises NAFE's ability to continue adding value to membership.

Recommendations

1. **Work with NSPE to see if additional NSPE staff support can be added** to NAFE's management in the form of administrative support, website development and user friendliness (see next section), database management, etc.
2. **Be careful about taking on too much.** It's not just a question of money. Before new products/services are undertaken there needs to be an assessment of NAFE's ability to deliver them at the very best level.
3. **Where possible, try to centralize communications and decision-making as it applies to members and membership.** It's important for (pardon the old-time reference) the right hand to know what the left hand is doing. Remember, quality control and first impressions are an important part of the NAFE brand. Some sort of communications flow control needs to be formalized, well-communicated to the leadership, and implemented.

Website Coordination

The organizational website has replaced calls the Headquarters office as the way all of NAFE's stakeholders (members, prospects, engineering profession, other organizations, the general public, etc.) find out about NAFE, learn about NAFE, and communicate with NAFE. Almost all of the membership recruitment, engagement, and retention efforts center around the website, too. Marketing is aimed at driving prospects to the site; applications and benefits are on the site; engagement opportunities are on the site; renewal options are on the site.

Recommendations

1. **Add some drop-downs from the home page under the top Membership tab** to allow visitors to go to the section they seek. Limit the number of clicks for all visitors, especially prospective members.
2. **Reverse the information on the membership landing page.** Start with the (updated) list of NAFE benefits before sending them to the how to join section. Make the page more about the prospective member than the organization.
3. **Create some empathy for the reader.** Refer to the exercises done in Denver to create content which lets prospective members know that this could be their new home page, where the organization (NAFE) knows what their daily challenges are and can help them meet those challenges.
4. **Update the information and forms.** Example: the directions ask applicants to fill out the 2016 Application Form. Even if the form is the same, at least update the date on it.
5. **Link membership promotions to specific pages, not just the home page.** Save the prospective members driven to the site through membership promotions some

unnecessary clicks by linking these promotions to specific pages in the membership part of the site, not just the home page.

6. **Add some member testimonials to the site.** Use quotes, photos, and videos to let current members talk to site visitors about how NAFE membership has helped make them more successful, raised their credibility, and helped create new partnerships and friendships.

Next Steps/Action Plan:

1. **Review assessment and recommendations, forward any questions to B.A.I., Inc.**
2. **Assign Committee/Task force to make action recommendations to Board**
3. **Task Force to identify recommended action items, categorized by**

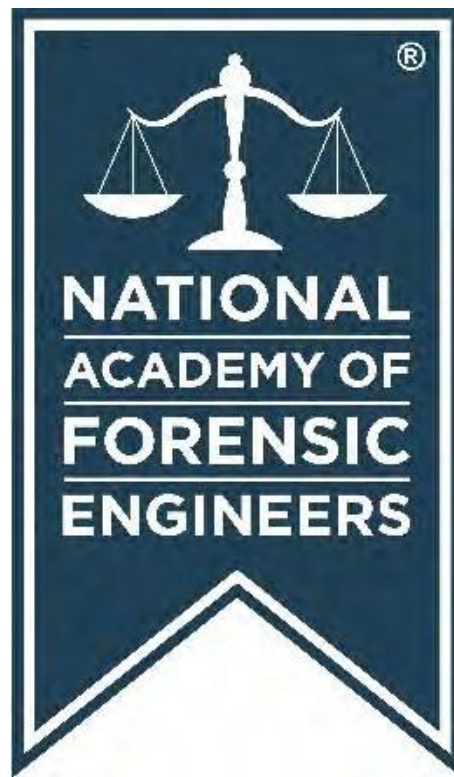
Immediate – easily implemented ideas/actions that don't require Board approval or funding)

Priority - ideas/actions that NAFE should try to have in place within one program year

Long Term – ideas/actions which require more planning, thought, discussion, money, etc. These should be discussed at Annual Planning Meetings

4. **Board to approve Committee Recommendations**
5. **Start to Grow the Academy!**

MEMBERSHIP





1266 W Paces Ferry Rd NW
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Dear Board of Directors,

As of January 14, 2025, we have 461 members across all membership grades. Compared to January 2024, we have a 16% increase in membership, with increases in all membership grades. Student membership increased 500% (1 to 6). The next largest percentage increase, 54%, (59 to 91) was for Affiliates. Associates increased by 18% (8), followed by Members at 13% (120 to 135). Previous annual budgets have included 10% increases in Application Fees each year for the last 2 years. If this trend of increasing membership continues, we may want to increase the Application Fees budget by 12% for FY 2026.

Best,

Tonja Koob Marking, PhD, PE, BC.WRE, BC.NE, DFE, MBA, PMP, CFM, F.ASCE

President

Gaea Consultants, LLC

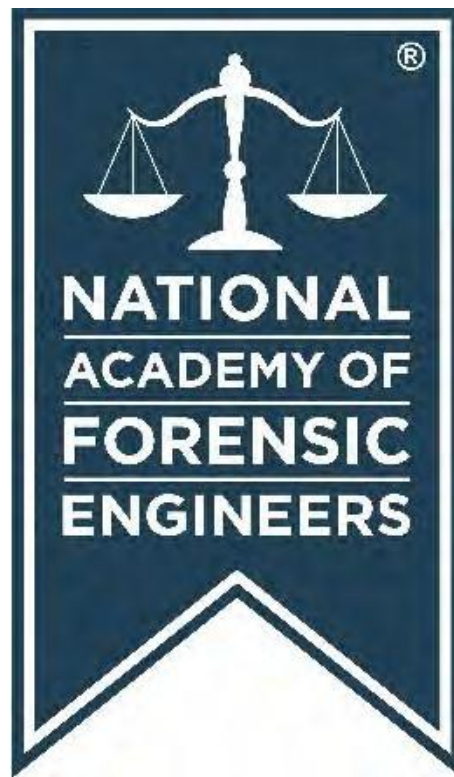
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NAFE1





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WWW.NAFE.ORG

November 18, 2024

To: NAFE Board of Directors
From: Robert O. Peruzzi, PhD, PE, DFE
Re: NAFE1 Discussion Board Committee Report

The NAFE1 Discussion Board Committee Members are:

Robert Peruzzi: Moderator
Rune Storesund: Moderator
Mitch Maifeld: System Administrator
Mike Leshner: System Administrator
Michael Stichter
Monika Schultz
Jim Drebelbis
Bruce Weirs
Joe Leane (NAFE President)

NAFE1 is a private discussion group for members of the National Academy of Forensic Engineers (NAFE).

No committee meetings were held.

Moderators responded to NAFE1 system messages as they occurred, sometimes with assistance from system administrators.

In general, the text content of any e-mail message you send to nafel@nafe.org gets forwarded to the NAFE1 e-mail list.

As suggested by Bruce Weirs, I am reprinting a message from a former NAFE1 moderator. In 2020, George J. Hall, P.E. wrote:

"I'd like to take this opportunity to remind all of NAFE Operating Procedure 11E (OP-11E, the "rules" for this email forum) language that states "The Email group is for educational and technical information exchange by NAFE Members..." The purpose of this group is to serve as a learning forum for technical issues related to Forensic Engineering, and that certainly covers most all of our past discussions on the group. Valid technical discussion on a forensic engineering issue is welcome – questions are welcome – that's what we do here. We Moderators have always tried to be fairly liberal in our interpretation of what constitutes discussion of "forensic engineering" issues, and we will continue to do so. If you aren't sure if a certain



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topic is permitted, ask first by emailing me offline.

I've tried to convey this next point before, but I've been unsuccessful so far, so allow me to try once more. Our email group consists of about 200 members. Every email you send to the group goes to 200 in-boxes. Not just any 200 in-boxes; each NAFEI email goes to the inbox of 200 very busy engineering experts who already receive dozens (or even hundreds) of emails each day. Please don't send superfluous emails that don't add anything of material significance to the conversation. Superfluous emails consist of such things as emails that simply say "I agree," or "well said," or "I don't have time to respond now but I'll email later," or "great post, looking forward to seeing you in Phoenix." If you want to convey those things by email, instead of replying to the entire group, you can just reply directly to the author of the email. Near the bottom of each NAFEI email there is a link to "Reply to Sender." Simply click on this link and your reply will only be sent to the author of the post, and the remaining 199 folks won't have to open, read, then delete your email that simply says "me too." I'm not trying to be a spoil-sport by asking this; we have had several members resign from our email group who told me that they simply received too many "junk" emails from the group. This forum gives each of you a lot of power; when you send an email it is going directly to about 200 engineering experts, all of whom will read and consider your email and possibly reply and offer advice or technical support that could enhance your own work and possibly save you days of research; this forum is indeed a very powerful tool! With great power comes great responsibility; I'm simply asking that each of us is considerate of that.

Another item in OP-11E that we should all remember is the following; "Personal attacks or the placement of material in poor taste or demeaning to others whether or not they are members of the Academy is prohibited." This includes any language that could be interpreted as being demeaning towards a state registration board, for instance. It is possible to state a philosophical disagreement without belittling the character or motives of the person/entity/institution with whom you may disagree, and that's what is required in this forum. Just state things using the same professional tone and demeanor that you use when writing an engineering report.

Finally, please note; I'm not directing this post towards any individual or individuals, so please don't consider it as such. I'm simply asking that we



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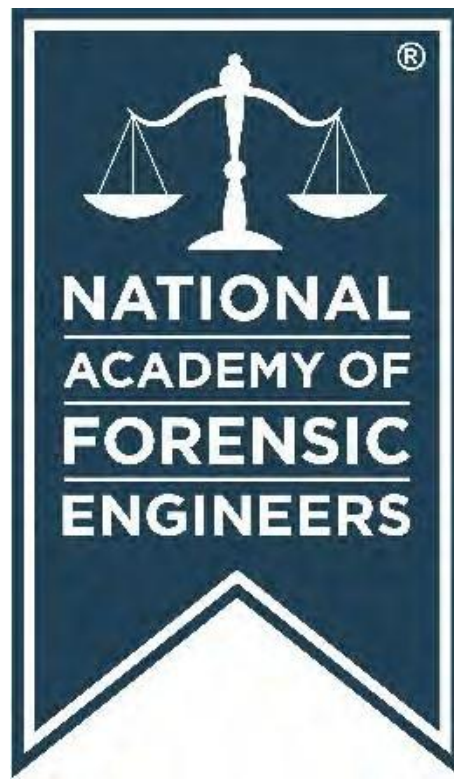
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*all take a little extra time and consideration before hitting the “send”
button. Now, if you happen to agree with me, please don’t reply to the
entire group and say so!”*

NATIONAL ACADEMY OF FORENSIC ENGINEERS

Robert O. Peruzzi, PhD, PE, DFE
NAFE1 Committee Chair

NOMINATING





1420 King Street
Alexandria, VA 22314-2794

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Fax: 703-836-4875

WWW.NAFE.ORG

May 20, 2024

To: Steve Pietropaolo, P.E., D.F.E (President)
From: Joseph Leane, PE, DFE, Sam Sudler, PE DFE, Liberty L. Janson, PE DFE

Nominating Committee Report May 20, 2024

The Nominating Committee communicated via telephone conversations and emails and reached out to active and eligible Senior Members and Fellows to request their continued service to the Academy.

As discussed in the Mark Levin Membership Report and Board Meetings in the last 5 years, the survival of the Academy will rely not just on membership growth, but engagement and retention of active, motivated leaders in the organization. Finding these motivated leaders will have to begin with those Senior Members who are motivated and the newly elevated Senior Members that are seen as potential leaders of the Academy.

The Nominating Committee submits the following slate of nominees to be officers and directors for the 2025 administrative year:

President-Elect: Tonja Koob Marking, PE DFE (NAFE 1152S)
Senior Vice President: Daniel Couture, PE DFE (NAFE 951S)
Vice President: Benjamin Railsback, PE DFE (NAFE 713F)
Directors-at-Large: To Be Determined

Treasurer: Bruce Wiers, PE DFE (NAFE 755S)
Secretary: Shawn Ray, PE DFE (NAFE 970S)

President (by accession from 2024 President Elect): Michael Aitken, PE DFE (NAFE 1110S)

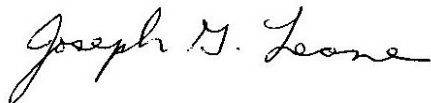
Past Presidents: Steven Pietropaolo PE DFE (NAFE 769S)
Joseph Leane, PE DFE (NAFE 524F)
Sam Sudler, PE DFE (NAFE 886S)

The report of the Nominating Committee shall be made to the members at least sixty days prior to the midyear semiannual meeting of the Board. Additional nominations to be added to the slate submitted for vote of the members may be made by petition of at least ten voting members. Such petition should be submitted to the secretary of the Academy at least ten days prior to the semiannual meeting of the Academy. The Secretary shall certify to that meeting the election to office of the unopposed nominees.

The Board shall include at least one and no more than two Director-at-Large. A Director-at-Large shall be nominated annually by petition only. The petition process is the same as the “additional nominations” described above.

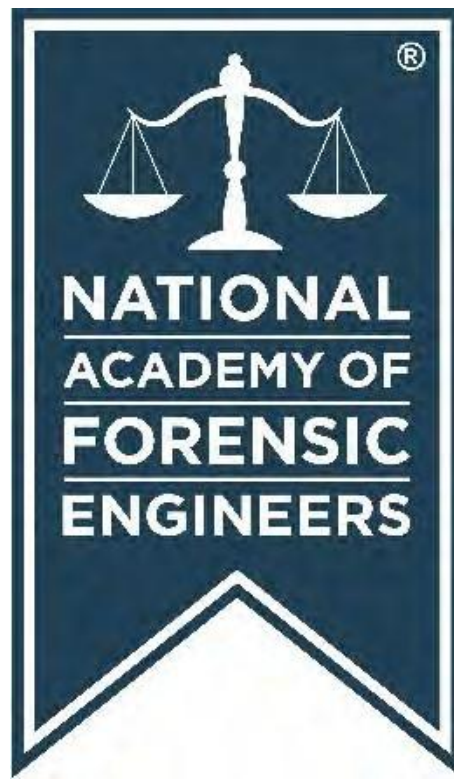
Sincerely,

NATIONAL ACADEMY OF FORENSIC ENGINEERS

A handwritten signature in cursive script that reads "Joseph G. Leane".

Joseph G. Leane, P.E., D.F.E.
Nominations Committee Chair

PUBLIC RELATIONS





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January 3, 2025

To: Steve Pietropaolo, PE (President)
From: Richard A. Rice, PE SE CBO (Chair, Public Relations Committee)
Re: Public Relations Committee Report

From the NAFE bylaws regarding the function of the various committees, we have the following regarding the Public Relations committee:

(c) The Committee shall strive to promote other efforts to bring the Academy to the attention of those who may utilize the services offered by Academy members, as well as to other interested parties and organizations.

To gain attention to NAFE from all sectors of our profession, several bylaw committee members, other NAFE members, and our Executive Director Amanda Hendley have been promoting NAFE on LinkedIn. The LinkedIn analytics for the NAFE page for the past year have shown increases in the amount of attention NAFE is getting.

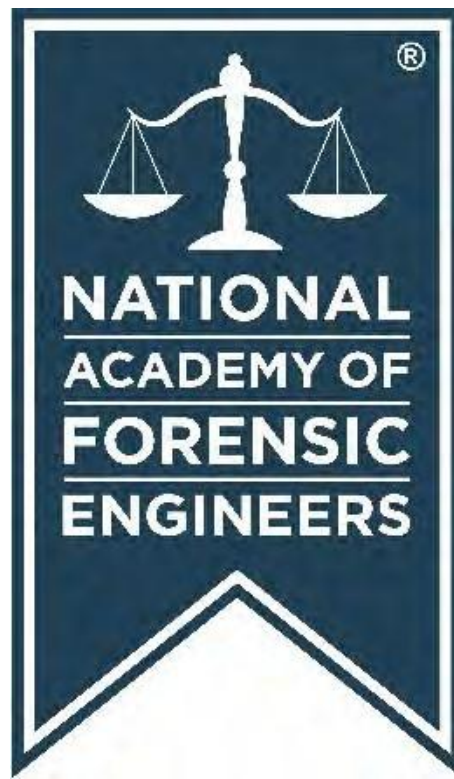
- 41,967 visits in 2024.
- 1,725 page views (up from 1688) in 2024
- A total of 1,166 followers of the NAFE LinkedIn page. There are 269 new followers of the NAFE LinkedIn page in 2024.

Over the past year, there appears to be an uptick of inquiries from attorneys directly to the NAFE membership about forensic engineering assignments. Many inquiries go directly to the Executive Director who submits them to the NAFE membership via NAFE1.

The Public Relations committee will continue to suggest that all members of NAFE promote NAFE through LinkedIn or other means to continue the growth of our academy.

Richard A. Rice, PE SE CBO, Public Relations Committee
CC: Amanda Hendley, Executive Director

PUBLICATIONS & TECHNICAL REVIEW





14 Jan., 2025

RE: Report for the Technical Review Committee

Dear President Pietropaolo,

The Technical Review Committee report is as follows:

1. The volunteer staff for the Journal is as follows:
 - Editor In Chief (Bart Kemper)
 - One Senior Associate Editor (Jim Green)
 - Eight active Associate Editors (Zo Alvi, Rebecca Bowman, Dave Ilove, Mark McFarland, Bob Peruzzi, Mike Plick, Paul Stephens, Paul Swanson)
 - One technical editor (Mitch Maifeld)
2. Our paid staff is one person, Ellen Parson, who is our Managing Editor.
3. We need additional Associate Editors.
4. The current issue is 4 papers. Given we have reached an equilibrium with 1 track of 8 papers, we should expect to have 4-9 papers per issue.
5. Backlog is defined by papers that are not in the current presentation cycle and not scheduled to go to print in the next issue. For example, a paper that is presented in January of a year and progresses to publication in July will never be “backlog.” Based on this definition, there are 12 papers in backlog, with 6 of the 12 being San Antonio (previous meeting) papers that did not step through at full speed. We should expect to maintain a backlog of 8-16 papers for a variety of reasons, to include being understanding of exigent developments with the authors.
6. This is my last edition as EIC to be January 2025, with Dr. David Ilove succeeding me and Rebecca Bowman as Senior Editor.
7. I have been asked continue as “Editor Emeritus”, in which I would support the Editor-in-Chief and Managing Editor as requested. The type of work anticipated includes coaching new Associate Editors, doing deep dives with challenging papers, or assisting with digital issues such as ORCID conflicts, CrossRef, and indexing.
8. Our visibility continues to increase, with surges coinciding with Journal issue publication. Using CrossRef as part of the OJS system has increased the visibility of the Journal and individual papers. Authors with an ORCID are also seeing their work indexed faster and across more scholarly databases like PUBMED. (See following pages.)

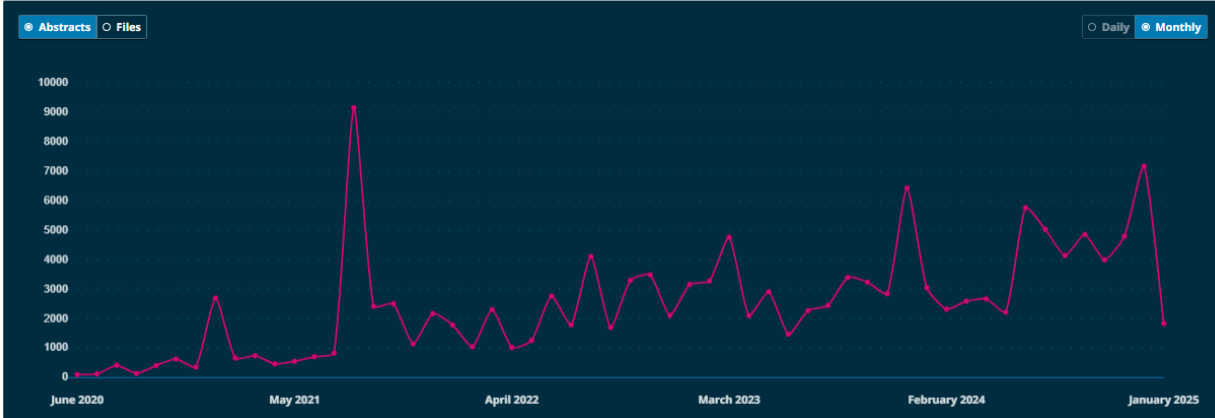
Best regards,

Bart Kemper



Articles

2020-06-15 — 2025-01-14 Filters



Williams Use of the Repairability Assessment Method for Evaluating Asphalt-Composition Shingle Roof Repairs	11155	7351	7351	0	0	18506
Icove et al. Computer Fire Modeling and the Law: Application to Forensic Fire Engineering Investigations	3966	1203	1203	0	0	5169
Liptai Forensic Engineering And The Scientific Method	1221	724	724	0	0	1945
Gordon et al. Preliminary Analysis of Roadway Accident Rates for Deaf and Hard-of-Hearing Drivers — Forensic Engineering Application	1341	392	392	0	0	1733
Icove et al. State of the Arc (Mapping)	1144	528	528	0	0	1672
Peruzzi Forensic Engineering Investigation of Electrical and Electronic Causes of an Industrial Equipment Failure	972	273	273	0	0	1245
Kemper Misapplication of Pressure Vessel Codes in Forensic Applications	861	293	293	0	0	1154
Svare et al. Forensic Examination of Post-Fire Damaged Electrical Conductors by Quantitative Measurement	788	359	359	0	0	1147
Svare Forensic Examination of Post-Fire Damaged Electrical Conductors by Using X-Ray Radiographs	762	376	376	0	0	1138
George et al. Forensic Engineering Investigation and Analysis of Crack Formation in Acetal Resin Nuts Used for Water Supply Lines	824	301	301	0	0	1125
Icove et al. Forensic Identification and Root Causes of Hot Socket Problems Found in Electrical Meters	775	314	314	0	0	1089
Peterson 3-D Math Model For Vehicle Dynamics Simulations Including Effects Of Tires Suspensions And Terrain	988	66	66	0	0	1054
DeWitt University Education In Forensic Engineering	1039	2	2	0	0	1041
Jacobson et al. Forensic Engineering Analysis of Failed UTV Roll Cages	499	535	535	0	0	1034
Cowley Forensic Engineering Analysis of a Failed ROPS	820	192	192	0	0	1012
Liptai Forensic Biomedical Engineering Experimentation And Modeling	786	145	145	0	0	931
Petrucci Machine Safeguarding: Theory, Practice, and Case Studies	557	271	271	0	0	828
Ziernicki et al. Forensic Engineering Use Of Computer Animations And Graphics	663	134	134	0	0	797
Sasso Forensic Engineering Analysis of Common Failures and Inspection Procedures for Residential and Commercial Chairs	516	273	273	0	0	789
Yaxley Forensic Analysis For Headlights On Or Off?	675	114	114	0	0	789
Kemper et al. Computational Fluid Dynamics Modeling of a Commercial Diving Incident	619	161	161	0	0	780
Lee Forensic Engineering Analysis of Upper Extremity Nerve Entrapment Injury Mechanisms as Related to Rear-End Collisions	431	338	338	0	0	769
Storesund Forensic Evaluation of Construction Noise and Vibrations Associated with an Urban Drainage Project	507	219	219	0	0	726
Liptai et al. Forensic Engineering Analysis Of Propeller Contact Injury	601	102	102	0	0	703
Tindal et al. Forensic Engineering Analysis Of Low Temperature Ignition Of Wood	695	7	7	0	0	702
Railsback et al. Forensic Engineering Analysis of Unintended Movement of Powered Industrial Trucks	408	289	289	0	0	697
Ziernicki, PhD, PE, DFE et al. Forensic Engineering Analysis of Projectile Thrown from Phantom Vehicle	495	199	199	0	0	694
Ziernicki et al. Forensic Engineering Evaluation Of Physical Evidence In Accident Reconstruction	432	252	252	0	0	684
Ziernicki et al. Forensic Engineering Application of the Matchmoving Process	450	228	228	0	0	678
Leffler et al. Forensic Considerations Regarding Traction and Tribometry of Bathing Surfaces	236	431	431	0	0	667

Overview of activity since June of 2020, including top 30 papers (of 571 in the database, published or otherwise)



scholar.google.com/scholar?hl=en&as_sdt=0%2C19&q="National+Academy+of+Forensic+Engineers"&btnG=

[Forensic engineering and the scientific method](#)

[PDF] nafe.org

LL Liptai - Journal of the **National Academy of Forensic Engineers**, 2009 - journal.nafe.org

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Forensic engineering experts with expertise in the field of biomechanics are frequently retained to conduct a biomechanical analysis of some injury-related incident. This may involve ...

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[PDF] [Forensic Engineering Analysis In Injury Event Reconstruction And Causation Analysis-References To Activities Of Daily Living](#)

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[The forensic engineer in state and federal court](#)

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[Forensic engineering technology solutions for highway work zone temporary traffic control investigations](#)

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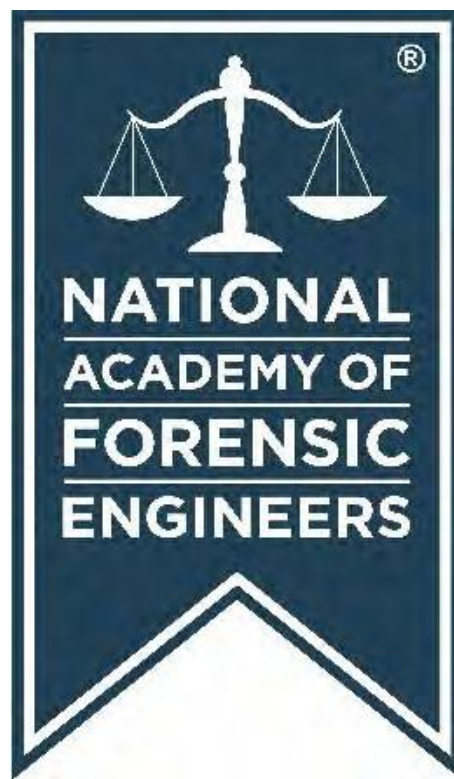
DJ Melcher, RE Keller - ... **National Academy of Forensic Engineers**, 2016 - journal.nafe.org

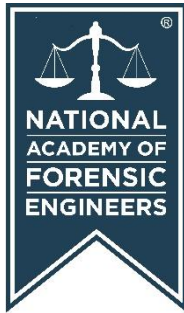
Incidents or collisions involving pedestrians, bicyclists, motorcycles, automobiles, heavy trucks, or tractor-trailers frequently occur in roadway or roadside areas affected by highway ...

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The top Google Scholar searches for "Journal of the National Academy of Forensic Engineers"

IT COMMITTEE





1266 W Paces Ferry Rd NW #141
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Tel: (770) 268-0802

<https://nafe.org>

Date: January 19, 2025
Subject: IT Committee Report

Current Status

Membership renewals around the turn of the year always require extra work. Over the many cycles, we have established more automated reminders with increasingly insistent wording. Some members have fed back a dislike for the regular reminders, but our lapsed membership numbers are down. Others ask what benefit NAFE provides that they should renew. FreeScout logs these conversations. Login at help.nafe.org. There you can also note our backlog of help requests: at the time of this writing, 45 people have sent us a message and are waiting to hear back from us and 87 people have not yet replied back to our last message. Our applications backlog stands at 37 people waiting. NAFE is not yet timely and responsive about communications with our membership and particularly with prospective members. Besides monitoring these administrative functions, the IT Committee is in a stability phase with mainly only maintenance and upgrades planned.

See the last page of this report for a graphic representation of our complete IT infrastructure and each of its components.

Help Desk

Customer service software called FreeScout runs three email mailboxes for: help@nafe.org to assist members, correspondence about each conference via conference@nafe.org and for interested parties (like “pre-sales”) to “Discuss with a Member” on discuss@nafe.org.

By Leader			
	45	87	400
	Active	Pending	Closed
User	Active	Pending	Closed
Unassigned	24	0	159
Amanda Hendley	5	55	94
Daniel Couture	2	7	14
Jim Drebelbis	2	0	0
Michael Aitken	2	2	3
Mike Stichter	2	1	10
Steve Pietropaolo	2	0	1
Ben Railsback	2	3	1
Mitch Maifeld	1	5	92
Bart Kemper	1	0	0

Date: Last 365 days



This Wallboard shows who has outstanding issues with our constituents (see right for stats from the last 12 months, as of 18 December 2024). Active issues mean the constituent is waiting for us to respond; Pending issues mean we are waiting for the constituent to respond. "Unassigned" issues are ones that our Executive Director will handle or delegate to a Board member. Using a help system was intended to keep us from dropping the ball when helping our constituents; we aren't there yet.

<https://help.nafe.org/wallboards>

Our "help desk" of all three of the above mailboxes handled 641 conversations with 184 different constituents in the last 12 months – about 2 per day. Unfortunately, 70% of issues take over 2 days to resolve, with an average over all issues of 60 days until resolution! Find these metrics in the FreeScout menu under "Reports".

Our Executive Director has been very helpful directing the traffic and answering some of the questions, but active committee participation is required to service most help requests.

NAFE1 Email Discussion List

GNU Mailman v2 comes free with our server management software and currently handles several dozen messages per month. The email address to use for NAFE1 is: nafe1@nafe.org Current moderators are Michael Stichter, Rune Storesund and Bob Peruzzi.

Online Advertising

Our Google Ads was suspended again for "Suspicious Payments". Last time when we appealed, we were reinstated. This time, not so. Google is infamous for this sort of thing with app developers, advertisers, and other customers: obtuse, obscure, and unresponsive. We were paying a lot of money for dubious benefits. We will discontinue Google Ads for now, unless a Board member has interest in advertising again.



WWW Site

Our nafe.org site is built on a content management system (CMS) called Drupal. On top of that is a back-end constituent relationship management system (CRM) called CiviCRM. It provides extensive capabilities for working with contact information, handling memberships, processing mailings, managing events with registrations, working case files for member applications, and accounting for all monetary transactions.

Email

There is no additional cost for unlimited email boxes as mail server software is included with our VPS. Positional accounts such as treasurer@nafe.org and president@nafe.org have mailboxes on euler which can be accessed via webmail interface or via email client. Most of these also have forwards to the position-holder's personal email address for that user's convenience. These change every January meeting when the officers shift. If you are on the Board but have not yet used your nafe.org email address while conducting NAFE business, let us know when we can help you set it up.

Journal

The NAFE Journal staff will expand upon Journal stats in their own report, but from a server perspective over the last 6 months our Open Journal Systems (OJS) handled in the range of 4000-5000 article views each month since June 2024. As usual, this is almost single-handedly driven by "Use of the Repairability Assessment Method for Evaluating Asphalt-Composition Shingle Roof Repairs" by Chad Williams in Vol. 37 No. 1 (2020).

Since starting sales of articles on OJS in November of 2020, we have sold 93 PDFs to non-members (or members who did not/could not take advantage of them being free) at \$25 each with 7 of those since the last conference (summer 2024).



Groupware

Our groupware solution called Nextcloud is available to our leaders at <https://cloud.nafe.org>. Most organizations use team collaboration software such as this and we have put our meeting minutes, bylaws, branding, contracts, and video recordings there. Every committee has its own shared folder as does every conference. Users also have their own personal folders which can be private, can be shared to other users individually, or can be set up as drop links such as for submission of presentations.

Education

To facilitate NAFE's expansion into online education, we have <https://education.nafe.org> which runs software called Moodle, a learning management system (LMS). There, we host one free seminar and four paid seminars which cost \$35 each, all delivered from our YouTube channel. If we may use one of your presentations for additional content, please contact the education chair at education@nafe.org.

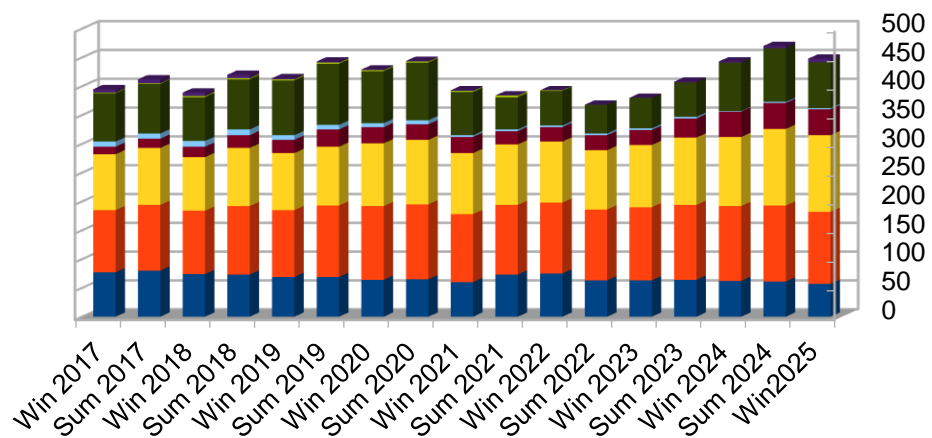
Database

From a low in summer 2022, several member grades grew substantially, but membership is now declining. We lost Fellows and Senior Members, but most of all we lost over a dozen Affiliates since this summer. From 41 applications waiting in the summer, we now have a backlog of 37 applicants waiting.



NAFE Membership

- Students
- Honorary
- Affiliates
- International
- Associate
- Members
- Senior
- Fellows

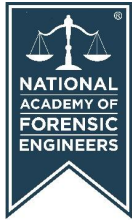


	Jan 2025	July 2024	Jan 2024	July 2023	Jan 2023	July 2022	Jan 2022	July 2021	Jan 2021	July 2020	Jan 2020	July 2019	Jan 2019	Jul 2018
Fellows	57	61	62	64	63	63	75	73	60	65	64	69	69	73
Senior	125	132	130	130	127	123	123	121	118	130	128	124	116	119
Members	133	133	120	117	108	103	106	105	106	112	109	102	99	101
Associate	45	45	44	33	26	26	25	23	28	27	28	30	23	22
International	2	2	1	3	3	3	3	3	3	7	7	8	8	10
Affiliates	80	93	84	60	53	50	60	56	75	100	90	106	95	87
Honorary	0	0	0	0	0	0	1	3	2	2	2	2	2	2
Students	6	4	2	1	0	0	0	0	2	2	1	2	2	6
Life Status	44	45	43	42	37	26	32	48	30	36	36	32	33	38
Total	448	470	443	408	380	368	393	385	424	481	465	475	446	458

n.b.; The Total just above does not double-count the number in the Life Status row as those members are counted within their base member grade.

Future Work

Building on the work of the last years as outlined above, the IT Committee is exploring these paths forward into the future:



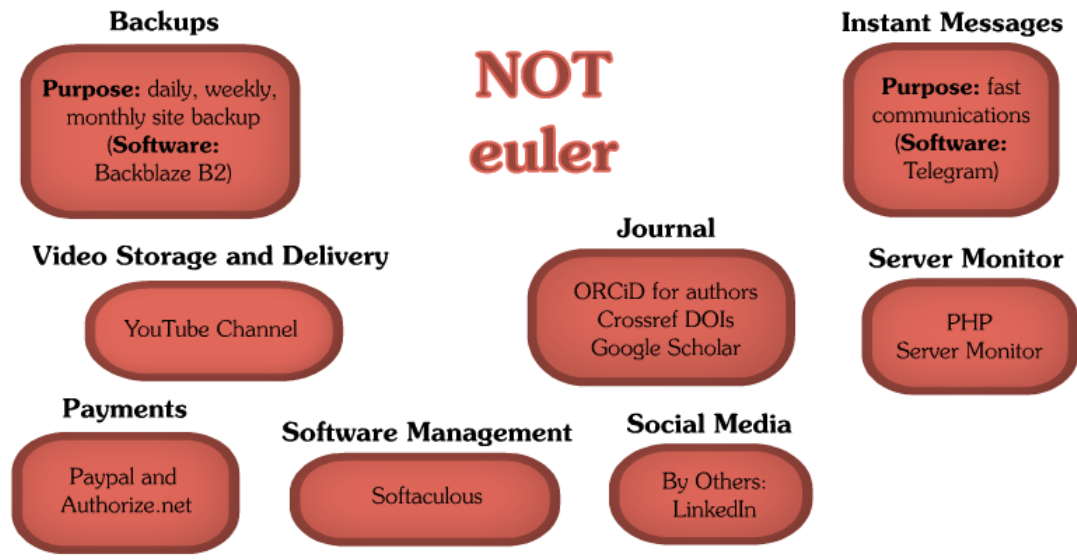
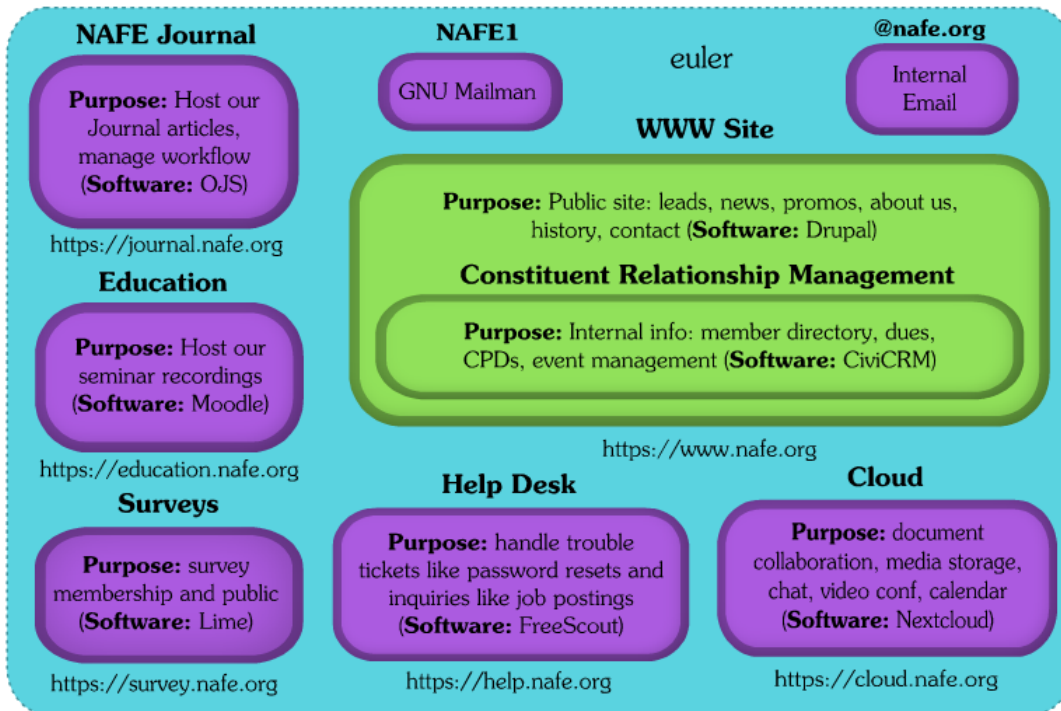
- Ongoing Maintenance
 - managing disk space
 - upgrade software packages
 - stakeholder support, training, education, and outreach
- Constituent Relationship Management (CRM) operations for current and prospective members with CiviCRM
 - member directory search by tags: geography/discipline/subject and profiles/connections for referral/networking using SearchKit and FormBuilder
 - CPDs restructured on dashboard and SearchKit results
 - Continue to streamline membership application workflow
 - Membership application reference letters submit via Webform
- Content Management System (CMS) improvements
 - Drupal 9/10 upgrade
 - Drupal theme and style upgrades by Stichter
- Extend and support journal management system (Open Journal Systems)
 - config fixes and updates
- Single Sign-On: retain authorization for all member functions (Journal, etc.)
 - OpenLDAP with phpLDAPadmin on identity.nafe.org using keycloak
 - gravatar.com for individual photos

Respectfully submitted,
Mitch Maifeld, PE
Dr. Michael Stichter, PE
Michael D. Leshner, PE

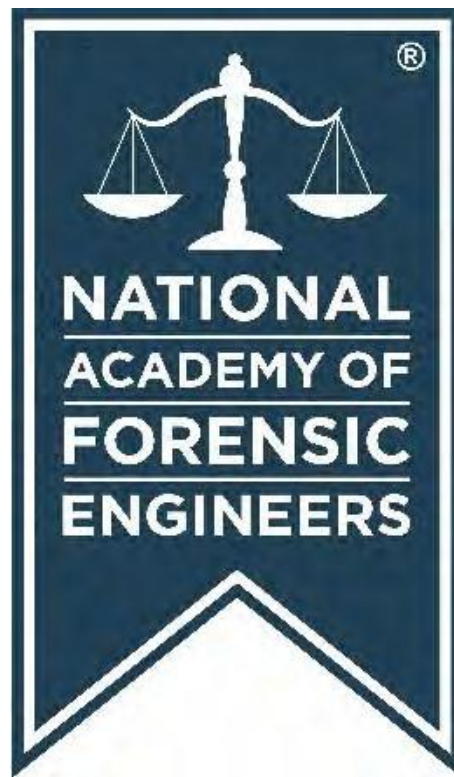


Virtual Private Server "euler"

The server is blue and each box is a function where: purple is substantially complete, green is in-progress and red is by others/outside of scope.



DISCIPLINE SPECIFIC





1266 W Paces Ferry Rd NW
Atlanta, GA 30327

WWW.NAFE.ORG

Tel: 404-268-0802
Fax: 404-841-6327

From: John Certuse

To: amanda@nafe.org

Fri, Jan 10, 10:27 PM

Amanda

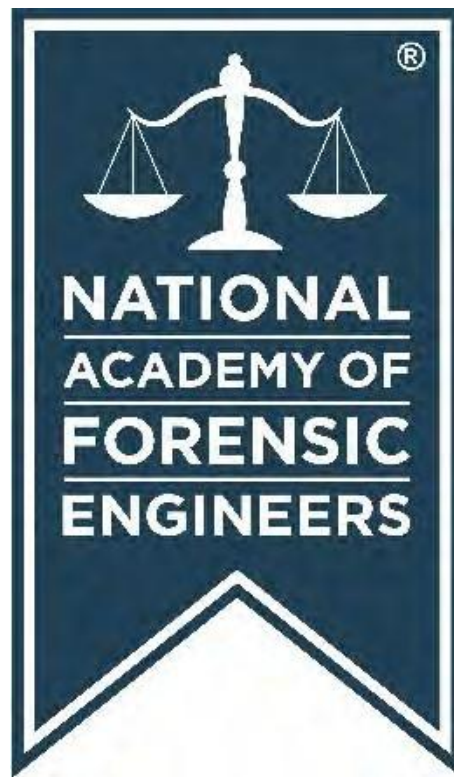
The marine committee has had no activity this period.

John Certuse P.E.

ISE Engineering

Past President - The National Academy
of Forensic Engineers

EXECUTIVE DIRECTOR'S REPORT





1266 W Paces Ferry Rd NW
Atlanta, GA 30327

WWW.NAFE.ORG

Tel: 404-268-0802
Fax: 404-841-6327

To: Board of Directors

From: Amanda Hendley, Executive Director

Progress Report

Since we last met, I have been collaborating with NAFE leadership to advance the organization and its initiatives. Key activities during this period included:

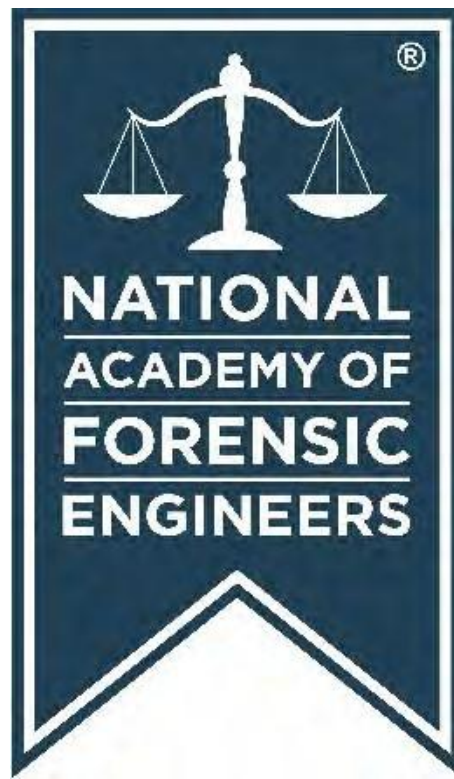
1. Developing a Strategic Direction document to detail Objectives, KPIs, tasks, and timelines.
2. Wrapping up the Summer 2024 NAFE Conference
3. Serving members through NAFE communication channels
4. Collaborating with Daniel Couture, NAFE Conference Liaison, to launch and execute the Winter 2025 Conference.
5. Evolving the admissions process and onboarding a team member to monitor our progress.
6. Enhancing marketing communications and social media presence
7. Assisting volunteer leaders with technology support
8. Conducting ongoing leadership meetings
9. Develop sponsorship opportunities and negotiate a sponsorship for the conference's receptions sponsorship

Upcoming Activities for the Next Six Months Plans for the next six months of 2024 include:

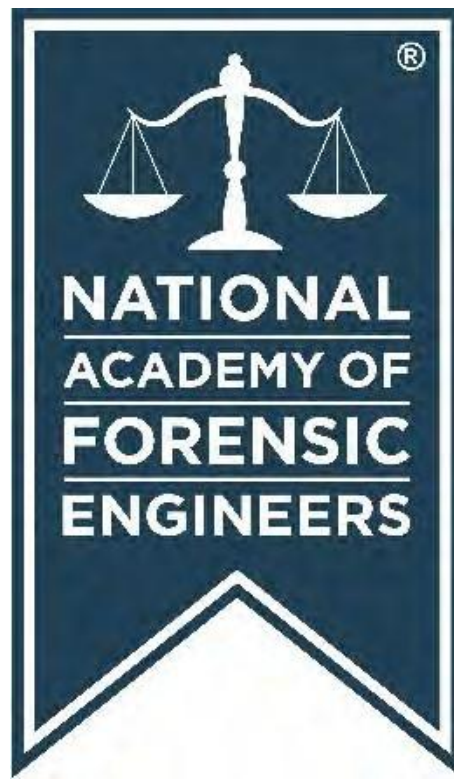
- Coordinating and launching the Summer 2025 Conference in Ottawa
- Proposals to potential sponsors of future conferences
- Moving forward on site selection conversations for 2026 conferences.
- Implementation of job board.
- Continuing to support member communications and leadership in furthering the organization

Thank you,
Amanda Hendley
Executive Director
amanda@nafe.org

SECRETARY'S REPORT



TRESURER'S REPORT





1420 King Street
Alexandria, VA 22314-2794

Tel: 703-684-2845
Fax: 703-836-4875

WWW.NAFE.ORG

January 8, 2025

To: NAFE BOD

From: Bruce Wiers, NAFE Treasurer bwiers@nederveld.com

Subject: NAFE financial report 2024

Happy New Year! The Academy has “turned the corner” due to MANY positive adjustments/improvements and the Treasurer is pleased. We are off to a great 2025 start with a wonderful conference in Santa Fe, New Mexico. The Academy is getting back to 2018-2019 years where we are financially strong.

Brief summary:

- Revenue is down 4.1% 2024 compared to 2023, inclusive of a \$3,000.00 sponsorship in 2024 toward the upcoming Santa Fe conference. NAFE will need to continue to monitor headcount of members at the various pricing classifications and attendance at the conferences for any significant trends downward. Note the Academy has received approximately \$20,000 in revenue since January 1, 2025.
- Expenses are down 30.5% compared to 2023.
- Positive net income of \$61,955.40 compared to the prior year loss of (\$18,559.07).
 - Some significant reductions in cost in 2024 compared to 2023 are:
 - Honorarium (speaker cost) in 2023 of \$28,594.61 that was not present in 2024.
 - Contract fee reduction in changing from NSPE to Association Catalyst from \$101,733.34 in 2023 to \$50,196.84 in 2024.

As a result of the decrease in current year expenses, the cash balance is significantly higher as of 12/31/24 at \$205,951.17 compared to 12/31/23 at \$143,995.77. This puts the Academy in a much stronger position heading into 2025 and beyond.

Please let me know if you have any questions.

Thank-you,
Bruce

Management Report

National Academy of Forensic Engineers
For the period ended December 31, 2024

Prepared on
January 6, 2025

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Balance Sheet Comparison Current Year-Last

As of December 31, 2024

		Total
	As of Dec 31, 2024	As of Dec 31, 2023 (PY)
ASSETS		
Current Assets		
Bank Accounts		
1st Bank Checking	0.00	0.00
Chase Checking	149,168.73	112,932.64
Chase Savings	55,076.60	30,066.48
PayPal	1,705.84	996.65
Total Bank Accounts	205,951.17	143,995.77
Accounts Receivable		
Accounts Receivable	0.00	0.00
Total Accounts Receivable	0.00	0.00
Other Current Assets		
Undeposited Funds	0.00	0.00
Total Other Current Assets	0.00	0.00
Total Current Assets	205,951.17	143,995.77
Fixed Assets		
Property & Equipment, Computers	0.00	0.00
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	\$205,951.17	\$143,995.77
LIABILITIES AND EQUITY		
Liabilities		
Total Liabilities		
Equity		
Opening Bal Equity	0.00	0.00
Unrestricted Net Assets	143,995.77	162,554.84
Net Income	61,955.40	-18,559.07
Total Equity	205,951.17	143,995.77
TOTAL LIABILITIES AND EQUITY	\$205,951.17	\$143,995.77

Balance Sheet Comparison Prior Years

As of December 31, 2022

		Total
	As of Dec 31, 2022	As of Dec 31, 2021 (PY)
ASSETS		
Current Assets		
Bank Accounts		
1st Bank Checking	0.00	0.00
Chase Checking	51,338.32	57,708.48
Chase Savings	100,053.01	100,033.36
PayPal	11,163.51	32,718.64
Total Bank Accounts	162,554.84	190,460.48
Accounts Receivable		
Accounts Receivable	0.00	0.00
Total Accounts Receivable	0.00	0.00
Other Current Assets		
Undeposited Funds	0.00	0.00
Total Other Current Assets	0.00	0.00
Total Current Assets	162,554.84	190,460.48
Fixed Assets		
Property & Equipment, Computers	0.00	0.00
Total Fixed Assets	0.00	0.00
TOTAL ASSETS	\$162,554.84	\$190,460.48
LIABILITIES AND EQUITY		
Liabilities		
Total Liabilities		
Equity		
Opening Bal Equity	0.00	0.00
Unrestricted Net Assets	190,460.48	137,428.04
Net Income	-27,905.64	53,032.44
Total Equity	162,554.84	190,460.48
TOTAL LIABILITIES AND EQUITY	\$162,554.84	\$190,460.48

Profit and Loss Comparison Current Year-Prior

January - December 2024

	Jan - Dec 2024	Jan - Dec 2023 (PY)	Total
INCOME			
Application Fees			256.25
Interest Income (Dividends)	10.12		13.47
Membership Dues	98,468.75		108,400.00
Miscellaneous Income			
Seminar Income #	169,012.50		173,235.00
Total Miscellaneous Income	169,012.50		173,235.00
Publication Sales	815.44		858.14
Sponsorships	3,000.00		
Total Income	271,306.81		282,762.86
GROSS PROFIT	271,306.81		282,762.86
EXPENSES			
Dues and Subscriptions	645.00		590.00
Education/Seminars			
Honorarium (Education Seminars)			28,594.61
Office & Phone Exp (EdChm)			416.20
Office Supplies (EdChm)	1,329.84		76.92
Rooms	3,054.96		2,934.10
Travel Exp	1,800.00		
Total Education/Seminars	6,184.80		32,021.83
Executive Director			
Contract Fee	50,196.85		101,733.34
Lodging & Meals (ExecDir)	8,273.20		221.70
Miscellaneous Expense	741.83		1,465.47
Travel (ExecDir)	12,579.24		8,248.68
Total Executive Director	71,791.12		111,669.19
Headquarters Exp			
Office Exp (H/Q)			
Postage & Shipping (H/Q)	0.63		1,724.09
Total Office Exp (H/Q)	0.63		1,724.09
Total Headquarters Exp	0.63		1,724.09
Journals			
Editing (Journals)	27,905.00		32,775.00
Total Journals	27,905.00		32,775.00
Other Expenses			
Advertising			790.12
Bank Charge	20,589.89		20,311.57
CESB, Annual Dues	5,300.00		10,600.00

		Total
	Jan - Dec 2024	Jan - Dec 2023 (PY)
Computer Software, Maint	577.75	560.74
Insurance	2,695.00	2,514.00
Membership Audit	300.00	
Miscellaneous Exp	66.00	224.00
Plaques, Awards & Gifts	389.95	
Prof Services, Accout & Legal	550.00	1,325.00
Total Other Expenses	30,468.59	36,325.43
Seminar Exp #		
Meals		
Meals, Bkfst, Exp	14,208.37	9,127.94
Meals, BLun, Exp	11,748.94	12,552.98
Meals, Din, Exp #	10,756.79	11,468.19
Total Meals	36,714.10	33,149.11
Meeting Room, AV Equip	21,899.55	43,950.04
Print Handout Mtls, Handbooks	4,622.97	
Refreshments, AM & PM	9,094.85	8,050.49
Stipend, Registration Asst		1,000.00
Total Seminar Exp #	72,331.47	86,149.64
Treasurer, Office Exp		
Postage & Shipping (Treas)	24.80	66.75
Total Treasurer, Office Exp	24.80	66.75
Unapplied Cash Bill Payment Expense	0.00	
Total Expenses	209,351.41	301,321.93
NET OPERATING INCOME	61,955.40	-18,559.07
NET INCOME	\$61,955.40	\$ -18,559.07

Profit and Loss Comparison Prior Years

January - December 2022

		Total
	Jan - Dec 2022	Jan - Dec 2021 (PY)
INCOME		
Application Fees	687.50	2,325.00
Interest Income (Dividends)	19.65	32.46
Membership Dues	104,615.18	74,621.66
Miscellaneous Income		
Seminar Income #	96,761.15	90,368.13
Total Miscellaneous Income	96,761.15	90,368.13
Publication Sales	941.04	593.82
Total Income	203,024.52	167,941.07
GROSS PROFIT	203,024.52	167,941.07
EXPENSES		
Board of Directors		
Travel, BOD Mtgs, to/from (BOD)		584.22
Total Board of Directors		584.22
Dues and Subscriptions	300.00	
Education/Seminars		
Office Supplies (EdChm)	216.11	
Postage & Shipping (EdChm)	122.17	
Total Education/Seminars	338.28	
Executive Director		
Contract Fee	109,000.00	43,600.00
Lodging & Meals (ExecDir)	66.36	
Miscellaneous Expense		1,289.60
Travel (ExecDir)	2,987.66	
Total Executive Director	112,054.02	44,889.60
Headquarters Exp		
Office Exp (H/Q)		
Computer & Internet (H/Q)		286.99
Postage & Shipping (H/Q)	520.05	225.07
Total Office Exp (H/Q)	520.05	512.06
Total Headquarters Exp	520.05	512.06
Journals		25.00
Editing (Journals)	30,324.99	30,420.40
Total Journals	30,324.99	30,445.40
Other Expenses		
Advertising	499.82	2,996.49
Bank Charge	11,177.64	9,036.69

		Total
	Jan - Dec 2022	Jan - Dec 2021 (PY)
CESB, Annual Dues	5,300.00	200.00
Computer Software, Maint	2,232.69	516.01
Insurance	2,449.00	1,916.00
Miscellaneous Exp	370.00	25.00
NAFE.org Web Site		3,664.51
Plaques, Awards & Gifts	366.27	
Total Other Expenses	22,395.42	18,354.70
Seminar Exp #		
Meals		
Meals, Bkfst, Exp	8,686.84	2,798.92
Meals, BLun, Exp	15,073.12	3,682.80
Meals, Din, Exp #	24,520.13	
Total Meals	48,280.09	6,481.72
Meeting Room, AV Equip	11,586.30	9,189.47
Print Handout Mtls, Handbooks	1,352.36	90.05
Refreshments, AM & PM	3,642.14	4,361.41
Total Seminar Exp #	64,860.89	20,122.65
Treasurer, Office Exp		
Office Supplies (Treas)	136.51	
Total Treasurer, Office Exp	136.51	
Total Expenses	230,930.16	114,908.63
NET OPERATING INCOME	-27,905.64	53,032.44
NET INCOME	\$ -27,905.64	\$53,032.44

Sales by Product/Service Summary

January - December 2024

				Total
	Quantity	Amount	% of Sales	Avg Price
Affiliate	85.00	12,750.00	4.70 %	150.00
Associate Member	50.75	11,418.75	4.21 %	225.00
Fellow	33.00	11,550.00	4.26 %	350.00
Journal Sales	33.00	856.25	0.32 %	25.9469697
Life Member	21.25	2,125.00	0.78 %	100.00
Member	122.50	30,625.00	11.29 %	250.00
NAFE Regular Seminar	11.00	13,240.00	4.88 %	1,203.6363636
NAFE Summer Seminar	93.00	77,957.50	28.73 %	838.2526882
NAFE Winter Seminar	85.00	77,815.00	28.68 %	915.4705882
Senior	100.00	30,000.00	11.06 %	300.00
Sponsorships	1.00	3,000.00	1.11 %	3,000.00
TOTAL		\$271,337.50	100.00 %	

Expenses by Vendor Summary

January - December 2024

	Total
Advanced Express	4,622.97
Association Catalyst LLC	59,536.06
Authnet Gateway	283.50
AwardsPlus	389.95
BTM Coaches, Inc	0.00
Cayan/Global Pay	15,735.27
CESB	5,300.00
CNA Insurance	366.00
Crossref	15.00
Ellen Parson	28,077.75
InterCity Agency, Inc.	2,329.00
Kathryn Bakos	950.00
Martin E Gordon, PE	300.00
Merchant Service	4,545.47
Nederveld	37,441.40
NSPE	13,193.91
PayPal	40.81
Posz Law Group PLC	550.00
Small Wonders-Gifts Inc.	391.62
The Shores Resort & Spa	34,447.86
Not Specified	25.65
TOTAL	\$208,542.22

Transaction List by Vendor

January - December 2024

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
Advanced Express						
02/21/2024	Bill	109436	Yes		Accounts Payable	1,737.97
02/29/2024	Bill Payment (Check)	2024	Yes		Chase Checking	-1,737.97
06/06/2024	Bill	109552	Yes		Accounts Payable	895.00
08/07/2024	Bill	109612	Yes		Accounts Payable	1,990.00
08/09/2024	Bill Payment (Check)	2039	Yes		Chase Checking	-995.00
09/09/2024	Bill Payment (Check)	2041	Yes		Chase Checking	-895.00
10/30/2024	Bill Payment (Check)	2045	Yes		Chase Checking	-995.00
Association Catalyst LLC						
01/20/2024	Bill	INV-000050	Yes		Accounts Payable	9,876.26
02/09/2024	Bill Payment (Check)	ACH	Yes		Chase Checking	-9,876.26
02/29/2024	Bill	INV-000055	Yes		Accounts Payable	3,920.98
03/11/2024	Bill Payment (Check)	2025	Yes		Chase Checking	-3,920.98
03/27/2024	Bill	INV-000062	Yes		Accounts Payable	3,639.62
04/08/2024	Bill Payment (Check)	2030	Yes		Chase Checking	-3,639.62
04/15/2024	Bill	INV-000066	Yes		Accounts Payable	3,500.00
04/17/2024	Bill Payment (Check)	ACH	Yes		Chase Checking	-3,500.00

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
05/01/2024	Bill	INV-000063	Yes		Accounts Payable	28.59
05/13/2024	Expense	ACH	Yes		Chase Checking	-3,500.00
05/14/2024	Bill Payment (Check)	2033	Yes		Chase Checking	-28.59
06/24/2024	Expense	ACH	Yes		Chase Checking	-3,500.00
07/25/2024	Expense		Yes		Chase Checking	-3,500.00
08/23/2024	Expense		Yes		Chase Checking	-3,500.00
08/26/2024	Expense	ACH	Yes		Chase Checking	-8,749.36
09/10/2024	Expense		Yes		Chase Checking	-3,500.00
10/25/2024	Expense		Yes		Chase Checking	-3,500.00
11/21/2024	Expense		Yes		Chase Checking	-3,500.00
12/02/2024	Bill	INV-000102	Yes		Accounts Payable	1,425.25
12/04/2024	Bill Payment (Check)	2049	Yes		Chase Checking	-1,425.25
12/16/2024	Bill	INV-000118	Yes		Accounts Payable	396.00
12/19/2024	Bill Payment (Check)	2054	Yes		Chase Checking	-396.00
12/23/2024	Expense	ACH	Yes		Chase Checking	-3,500.00
Authnet Gateway						
01/02/2024	Expense	ACH	Yes		Chase Checking	-26.40
02/02/2024	Expense	ACH	Yes		Chase Checking	-25.85
03/04/2024	Expense	ACH	Yes		Chase Checking	-25.60

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
04/02/2024	Expense	ACH	Yes		Chase Checking	-25.45
06/04/2024	Expense	ACH	Yes		Chase Checking	-25.60
07/02/2024	Expense		Yes		Chase Checking	-25.80
08/02/2024	Expense		Yes		Chase Checking	-26.00
09/03/2024	Expense		Yes		Chase Checking	-25.30
10/02/2024	Expense		Yes		Chase Checking	-25.30
11/04/2024	Expense		Yes		Chase Checking	-25.80
12/03/2024	Expense	ACH	Yes		Chase Checking	-26.40
AwardsPlus						
12/19/2024	Bill	0162810-IN	Yes		Accounts Payable	389.95
12/20/2024	Bill Payment (Check)	2055	Yes		Chase Checking	-389.95
BTM Coaches, Inc						
01/16/2024	Bill Payment (Check)	2018	Yes		Chase Checking	-850.00
01/19/2024	Bill	16020	Yes		Accounts Payable	850.00
Cayan/Global Pay						
01/02/2024	Expense	ACH	Yes		Chase Checking	-5,177.51
02/02/2024	Expense	ACH	Yes		Chase Checking	-2,022.36

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
03/01/2024	Expense	ACH	Yes		Chase Checking	-906.63
04/01/2024	Expense	ACH	Yes		Chase Checking	-525.49
05/02/2024	Expense	ACH	Yes		Chase Checking	-883.65
06/03/2024	Expense	ACH	Yes		Chase Checking	-1,399.14
07/01/2024	Expense		Yes		Chase Checking	-3,181.89
08/02/2024	Expense		Yes		Chase Checking	-280.20
09/03/2024	Expense		Yes		Chase Checking	-300.85
10/02/2024	Expense		Yes		Chase Checking	-263.85
11/04/2024	Expense		Yes		Chase Checking	-492.85
12/02/2024	Expense	ACH	Yes		Chase Checking	-300.85
CESB						
11/18/2024	Bill	2025 Dues	Yes		Accounts Payable	5,300.00
11/26/2024	Bill Payment (Check)	2048	Yes		Chase Checking	-5,300.00
CNA Insurance						
01/16/2024	Bill Payment (Check)	2016	Yes		Chase Checking	-366.00
Crossref						
01/16/2024	Bill Payment (Check)	2017	Yes		Chase Checking	-15.00

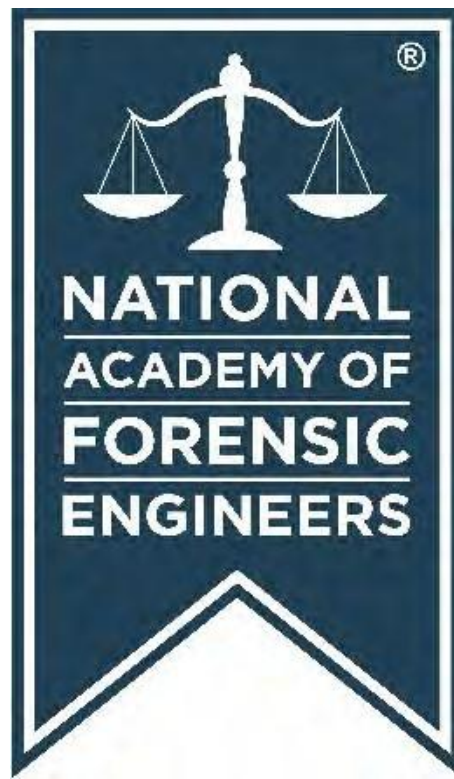
Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
Ellen Parson						
02/09/2024	Check	2021	Yes	February 2024	Chase Checking	-2,500.00
03/11/2024	Check	2026	Yes	March 2024	Chase Checking	-2,500.00
04/08/2024	Check	2028	Yes	April 2024	Chase Checking	-2,500.00
04/14/2024	Bill	PlagScan	Yes	Plag Scan Credit Reimbursement	Accounts Payable	49.99
05/06/2024	Bill Payment (Check)	2031	Yes		Chase Checking	-49.99
05/14/2024	Check	2032	Yes	May 2024	Chase Checking	-2,500.00
06/14/2024	Check	2035	Yes	June 2024	Chase Checking	-2,500.00
07/09/2024	Check	2036	Yes	July 2024	Chase Checking	-2,500.00
08/09/2024	Check	2037	Yes	August 2024	Chase Checking	-2,500.00
09/09/2024	Check	2040	Yes	September 2024	Chase Checking	-2,500.00
10/07/2024	Bill		Yes	subscriptions	Accounts Payable	3,027.76
10/08/2024	Bill Payment (Check)	2043	Yes		Chase Checking	-3,027.76
11/12/2024	Check	2046	Yes	October 2024	Chase Checking	-2,500.00
12/11/2024	Check	2052	Yes	November 2024	Chase Checking	-2,500.00
InterCity Agency, Inc.						
01/23/2024	Bill	114521	Yes	Inv. 114521; Policy No. PHSD1845169	Accounts Payable	2,329.00

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
02/13/2024	Bill Payment (Check)	2022	Yes		Chase Checking	-2,329.00
Kathryn Bakos						
11/13/2024	Bill	Winter Conf Reimb	Yes		Accounts Payable	950.00
11/13/2024	Bill Payment (Check)	2047	Yes		Chase Checking	-950.00
Martin E Gordon, PE						
12/04/2024	Bill	PIE 2024	Yes		Accounts Payable	300.00
12/04/2024	Bill Payment (Check)	2050	Yes		Chase Checking	-300.00
Merchant Service						
07/09/2024	Expense		Yes		Chase Checking	-140.08
08/08/2024	Expense		Yes		Chase Checking	-1,231.20
09/10/2024	Expense		Yes		Chase Checking	-45.66
10/08/2024	Expense		Yes		Chase Checking	-66.42
11/08/2024	Expense		Yes		Chase Checking	-1,286.00
12/10/2024	Expense	ACH	Yes		Chase Checking	-1,776.11
Nederveld						
06/14/2024	Bill	6.14.24	Yes		Accounts Payable	960.00

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
06/14/2024	Bill Payment (Check)	2034	Yes		Chase Checking	-960.00
07/17/2024	Bill	CrossRef	Yes		Accounts Payable	100.00
08/09/2024	Bill Payment (Check)	2038	Yes		Chase Checking	-100.00
09/09/2024	Bill	Summer Conf 2024 Reim	Yes		Accounts Payable	36,315.60
09/09/2024	Bill Payment (Check)	2042	Yes		Chase Checking	-36,315.60
12/11/2024	Bill	12.10.24	Yes		Accounts Payable	65.80
12/11/2024	Bill Payment (Check)	2051	Yes		Chase Checking	-65.80
NSPE						
02/29/2024	Bill	NAFE-2024-Exp	Yes		Accounts Payable	1,918.04
02/29/2024	Bill	NAFE-2024-Svcs	Yes		Accounts Payable	11,275.87
04/08/2024	Bill Payment (Check)	2029	Yes		Chase Checking	-13,193.91
PayPal						
01/31/2024	Expense		Yes	Fees for January 2024	PayPal	-3.42
02/29/2024	Expense		Yes	Fees for February 2024	PayPal	-7.74
03/31/2024	Expense		Yes	Fees for March 2024	PayPal	-1.54
04/30/2024	Expense		Yes	Fees for April 2024	PayPal	-8.51
05/31/2024	Expense		Yes	Fees for May 2024	PayPal	-5.44
06/30/2024	Expense		Yes	Fees for May 2024	PayPal	-1.36

Date	Transaction Type	Num	Posting	Memo/Description	Account	Amount
08/30/2024	Expense		Yes	Fees for May 2024	PayPal	-4.46
09/30/2024	Expense		Yes	Fees for May 2024	PayPal	-2.72
11/30/2024	Expense		Yes	Fees for May 2024	PayPal	-2.72
12/31/2024	Expense		Yes	Fees for December 2024	PayPal	-2.90
Posz Law Group PLC						
06/21/2024	Bill	56886	Yes		Accounts Payable	550.00
10/11/2024	Bill Payment (Check)	2044	Yes		Chase Checking	-550.00
Small Wonders-Gifts Inc.						
01/16/2024	Bill	INV35344	Yes		Accounts Payable	391.62
02/09/2024	Bill Payment (Check)	2020	Yes		Chase Checking	-391.62
The Shores Resort & Spa						
01/25/2024	Bill	2024 Winter Meet NAFE	Yes		Accounts Payable	34,447.86
02/21/2024	Bill Payment (Check)	2023	Yes		Chase Checking	-34,447.86

PRESIDENT'S REPORT





1266 W Paces Ferry Rd NW
Atlanta, GA 30327

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Fax: 404-841-6327

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Date: November 21, 2024

Dear Colleges and Friends in NAFE:

It's an exciting time of year. We are two short months away from our 2025 Winter Conference in Santa Fe, New Mexico. I am so excited for our event this year. We had some of our earliest registrations and are already at 47 attendees. I want to thank Amanda and the conference team for getting the word out early and planning as quickly as they did. We have a great line-up including our [Saturday Technical Program](#) and our [Sunday Educational Program](#). The early bird deadline is December 1st, and you can learn more at <https://nafe.org/conference>

As you plan your travel, plan to attend the board meeting on Friday, January 16, and the awards banquet that evening.

Your board has been working diligently this year on several key items we discussed at our Summer Board Meeting.

- Strategic Planning – We are currently developing Key Performance Indicators to align with our approved Strategic Plan - Joe Leane, Mitch Maifeld, Mike Stichter, and Zohaib Alvi have been instrumental in this process. This document will become a key part of our operations moving forward.
- Sponsorship – We are working with several potential sponsors to add to our organization and hope to present them at our next meeting.
- Job Board – We hope to have this resource for job seekers and hiring companies launched by February 2025.

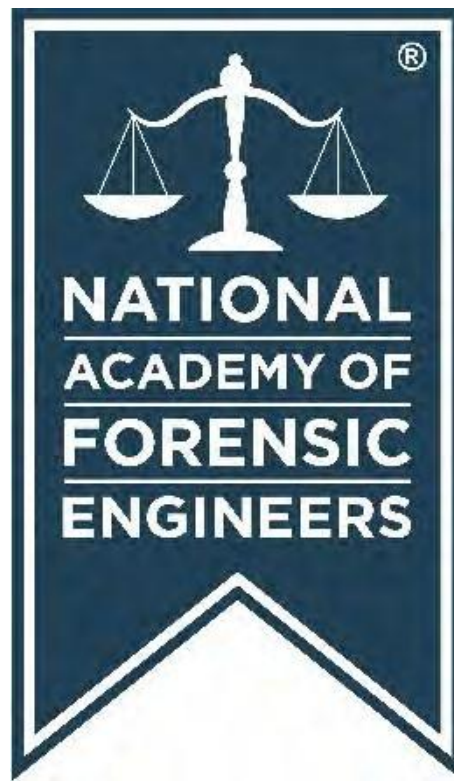
Lastly, let me announce the NAFE Summer 2025 Conference will be July 11-13 in Ottawa, Ontario Canada. Get your passports in order now!

As my term ends, I want to thank the entire board and the members and affiliates for their unwavering commitment and support. It has been my pleasure to serve such a great Academy at the forefront of the field of forensic engineering, a practice for which I am so passionate.

Regards,

Steve Pietropaolo, MS, PE, CFEI, DFE, F. NAFE
President

STRATEGIC PLANNING UPDATE





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NAFE Strategic Focus Areas

Pillar One: Collaborate for the thrill of curiosity

We will build a network of diverse multi-disciplinary engineers to exchange insightful ideas, address unique challenges, and engage in creative conflict.

Objectives:

- Leverage a Multichannel Approach to Build and Share Knowledge
 - KPI: Development of New and Existing Channels for Learning and Exchange
 - Create a committee to research and execute online educational opportunities across various formats (e.g., Moodle).
 - Enhance the LISTSERV (NAFE1) to improve information exchange, idea sharing, and collaboration among members.
 - Explore new platforms such as NAFE2, Reddit, or NSPE forums to expand engagement opportunities.
 - Develop diverse online training resources to meet member needs.
- Create an Equitable Community with a Strong Regional Framework
 - KPI: Establish a Committee of Regional Representatives
 - Develop a framework for regional member activities using a heat map to identify member concentrations.
 - Collaborate with NSPE state/regions to effectively communicate NAFE's value.
 - KPI: Engage Regional Leaders
 - Reach out to regional presidents to introduce and integrate NAFE's mission and resources.
- Provide a Forum for Collaboration on Major Challenges
 - KPI: Conference Engagement and Feedback
 - Ensure conference sessions address issues that significantly impact humankind and improve lives.
 - KPI: Accessibility and Engagement Through Digital Platforms
 - Improve access to the LISTSERV or create a Reddit-style forum to foster idea exchange.
 - KPI: Partner Collaboration
 - Incorporate partner contributions in sessions to address shared challenges and solutions.



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Pillar Two: Foster Opportunities for Learning, Networking, and Professional Engagements

We will welcome new members, offer helpful personal and professional resources, advance the profession of forensic engineering, and employ consistently ethical practices.

Objectives:

- Grow Membership Internationally
 - KPI: Implementation and Growth of an International Membership Program
 - Explore partnerships with organizations such as JSPE and NSPE.
 - KPI: Engagement of International Members
 - Determine qualifications for international members, including a potential iDFE credential.
 - Convene a committee to discuss credentials and outline next steps.
- Broaden the Scope of Member Engagement and Interactive Participation
 - KPI: Increase Member Participation in Events and Activities Annually
 - KPI: Expand Interactive Opportunities
 - Develop workshops, Q&A sessions, and other member-focused events.
 - Encourage Sunday presenters to produce a one-page paper for peer review by fellow presenters.
 - Publish Sunday presentations before or after the conference to broadly share knowledge.
 - KPI: Improve Retention Rate of Active Members
 - Send engagement letters detailing what NAFE has accomplished for members.
 - Include small tokens such as pins to enhance member recognition.
- Partner with the Wider Engineering Community for the Betterment of All
 - KPI: Formalize Relationships with Partner Organizations
 - Collaborate with groups like NSPE and ACEC to create shared value and opportunities.



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Pillar Three: Integrate practical knowledge beyond technical skills for present and future forensic engineers.

We will serve as an academy, preparing and certifying individuals who can demonstrate a high degree of expertise in forensic engineering.

Objectives:

- Optimize our certification program for maximum effectiveness.
 - KPI: Decrease Application processing time for DFE candidates.
 - Focus on streamlining the reference collection procedure.
 - Evaluate and measure current processing times to establish benchmarks.
 - KPI: Increase satisfaction rate of DFE recipients
 - Survey applicants at the point of application to capture goals and expectations.
 - Conduct an annual survey for DFE recipients to evaluate the perceived value of certification. Ask “What value has your DFE delivered?”
- Ensure our content is multi-disciplinary and includes a focus on soft skills.
 - KPI: Include at Least One Soft Skills Session at Every NAFE Conference
 - Identify relevant topics that balance technical and professional development.
 - Work with experts to integrate soft skill elements into approved technical presentations where feasible.
 - KPI: Ensure Multi-Disciplinary Balance
 - Track session topics across conferences to maintain diversity in disciplines (e.g., mechanical, fire, electrical).
 - Conduct biannual reviews of session content and themes to ensure variety.
 - KPI: Collect and Act on Feedback About Themes and Topics
 - Conduct post-conference surveys to capture desired topics for future events.
 - Avoid discipline-exclusive themes but maintain flexibility for focused training when demand exists.
- Expand Our Education Delivery Ecosystem
 - KPI: Increase Availability of On-Demand Curricula
 - Track the number of available on-demand courses annually.
 - Create a dedicated committee to research and execute online opportunities.
 - KPI: Enhance Virtual and Hybrid Offerings
 - Measure attendance and engagement in virtual assemblies.



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- Action Items:
 - Use Moodle to create accessible learning materials.
 - Enhance On-Demand Curricula
 - Capture conference presentations (e.g., via Zoom or live recordings) to build a library of educational resources.
- Advance Forensic Engineering Through Education and the Publication of Peer-Reviewed Technical Literature
 - KPI: Increase Submissions and Published Papers in the NAFE Journal
 - Track submission rates and monitor the number of peer-reviewed papers published annually.
 - Ensure that quality standards remain uncompromised.
 - KPI: Track and Increase Citations and References to NAFE Publications
 - Utilize Bart's reports to measure NAFE's influence through citations in academic and professional spaces.
 - Capture external media impressions where NAFE is referenced as an authoritative body.
 - KPI: Expand External Exposure of NAFE Content
 - Promote published papers and presentations through academic and industry channels to increase visibility. Advance forensic engineering through education and the publication of peer-reviewed technical literature.



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Pillar Four: Operational Excellence and Financial Resiliency

We will strengthen NAFE's operational efficiency and financial resilience by optimizing internal processes, building a sustainable revenue model, and elevating our visibility and reputation within the engineering community. By establishing strategic partnerships, expanding sponsorship opportunities, and launching a job board for forensic engineers, we aim to support the long-term success of both our organization and members.

Objectives:

- Ensure financial stability by growing reserves.
 - KPI: Number of months the organization can operate without external funding
 - Target: Maintain reserves equal to half of projected annual expenses.
 - KPI: Annual Increase in Operational Reserves
 - Target: Achieve a 50% increase in reserves annually until target reserve is met.
 - KPI: Ratio of Revenue Sources
 - Monitor the balance between revenue streams (e.g., membership, events, certification programs, sponsorships). KPI: % increase annually over the next in operational reserves annually.
 - KPI: Ratio of revenue sources (membership, events, certification programs, sponsorships, etc.)
- Increase Visibility and Reputation
 - KPI: Media Mentions and Feature Articles
 - Track % increase in media mentions highlighting NAFE's contributions.
 - Utilize citations and publicity committee reports, such as Bart's data and Google Alerts.
 - KPI: Social Media Engagement and Website Traffic
 - Measure growth in impressions, engagement rate, and web traffic month-over-month and year-over-year.
- Launch and Monitor a Job Board for Forensic Engineers
 - KPI: Number of Job Postings Submitted
 - Track job board activity to measure adoption and utilization.
 - KPI: Number of Job Seekers
 - Monitor the growth of job seeker participation.
 - KPI: Revenue Generated
 - Evaluate the financial impact of the job board initiative.
- Grow Sponsorship Income
 - KPI: Sponsorship Revenue as a Percentage of Total Budget
 - Establish a target percentage (e.g., 30%) for sponsorship contributions to overall income.



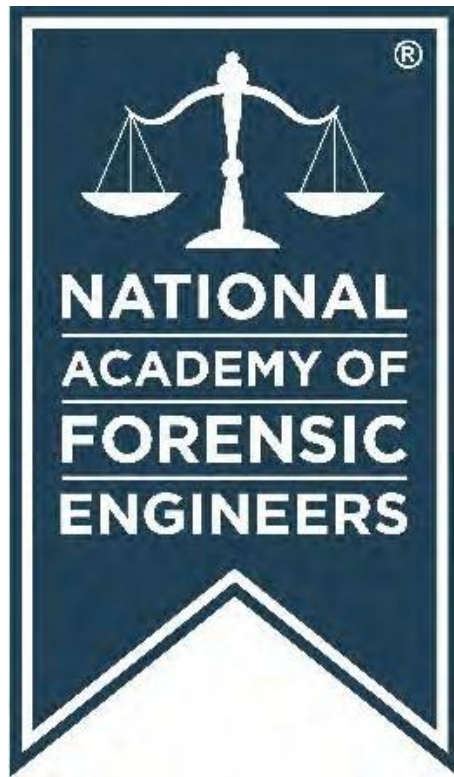
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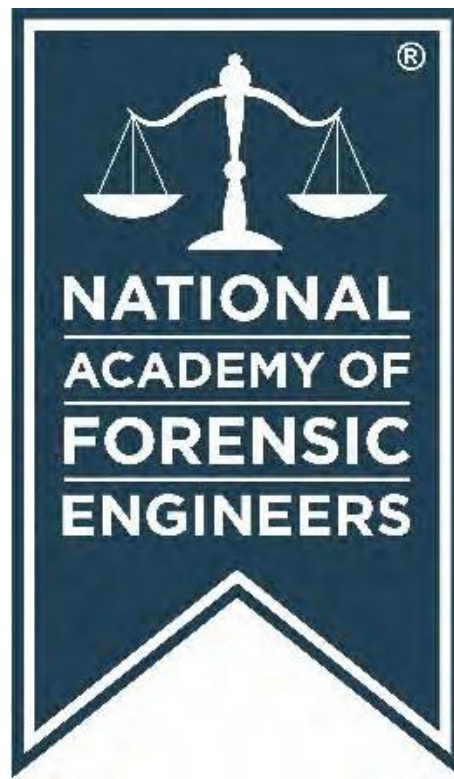
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- KPI: Number of Sponsors
 - Track both new and returning sponsors annually.
- KPI: Revenue from Sponsorships
 - Monitor the growth of sponsorship income over time.

**MEMBERSHIP
CULTIVATE NEW
MEMBERS**



ADMISSIONS



Clarence B. “Bart” Kemper, III
Lt. Colonel, US Army (Retired)
Professional Engineer, Board Certified Forensic Engineer
P.E., RPEQ, IntPE, CPEng, DFE, CFEI
Fellow, ASME and NSPE

bkemper@kempereng.com bart.kemper@louisiana.edu (+01) 225-324-8353

Education:

High School, Xaverian, Brooklyn, NY
BSME, Louisiana State University, Baton Rouge, LA
Commissioned Army Reserves, Corps of Engineers (Distinguished Military Graduate)
US Army Corps of Engineers officer training through Command & General Staff College

Technical (selected items)

Fire Investigation Training Program (NAFI), New Orleans, 2022
Computational Fluid Dynamics for Structural Designers & Analysts (NAFEMS) 2021
Advanced Surface and Subsurface Drilling Blasting (Mo. Univ. of Science & Technology) 2019
Blaster’s Course and Annual Conference on Explosives and Blasting Technique (ISEE) 2019
Attack Site Forensic Investigation Course (National Ground Intelligence Center), FT Polk, LA 2019
Counter-Explosive Hazards Planner’s Course (US Counter Explosive Hazards Center), FT Wood MO 2018
“Train-the-Trainer” Kirk’s Fire Investigation, NAFE 2018 Winter Conference, Phoenix AZ 2018
USACE Area Office University/Project Management, USACE, Winchester VA, 2013
International Dynamics of Terrorism (INTAC) US Army Corps of Engineers, 2013
Supervisors Development Course (US Army) 2013
Security Engineering & Blast Modeling (Protective Design Center, USACE) Baghdad, Iraq 2006
Base Camp Master Planning (US Army Corps of Engineers) Camp Shelby, MS 2005
Accident Reconstruction, SAE Professional Educ. Center, Detroit, MI 1999
Finite Element Analysis, ANSYS OEM Course, Houston, TX. 1995

Professional:

Registered Professional Engineer (Multiple jurisdictions)
Board Certified Forensic Engineer (NAFE Diplomate, #965S)
National Association of Fire Investigators (NAFI), Certified Fire and Explosion Investigator
Fellow, American Society of Mechanical Engineers (F.ASME)

- Member of the Pressure Vessel for Human Occupancy (PVHO) Codes and Standards (C&S) Committee
Chair: Viewports, Design By Analysis; Vice Chair: General Requirements Subcommittee
Subcommittees: Submersibles, Diving Systems, Design & Piping, Viewports, General Requirements, Post Construction (PVHO2); Medical Systems
Working Group: “Design by Analysis” for Glassy Polymers; Tunneling PVHOs
- Member, Mobile Uncrewed Systems, Verification & Validation C&S committees and subcommittees
- Active in the Safety Engineering & Risk Assessment Division (SERAD)

Fellow, National Society of Professional Engineers (F.NSPE)

- 2021-present NSPE Committee On Policy and Advocacy (COPA)
- 2019-present NSPE Software Certification Task Group
- 2018-2020 NSPE Taskforce on Emerging Technology

Senior Member, National Academy of Forensic Engineers (NAFE)

- 2020-present Editor-in-Chief, Journal of the National Academy of Forensic Engineers
- 2018-2020 Board of Directors Member as Vice President, Director
- 2017-present Peer review; Member of the Ethics committee

Member, Louisiana Engineering Society (LES) (State chapter of the NSPE)

- President, Baton Rouge Area Section (2001-2002), plus other Section and State offices

Professional Work History:

2006-current Kemper Engineering Services, LLC. Baton Rouge, La.

- Position: VP of Engineering, Principal Engineer
- Principal Responsibilities: Lead engineer, responsible for all work by staff and contract employees. Also in charge of the company's Outreach & Engagement efforts
- Principal Technical Areas: Mechanical design, Machine design, Structural design, Vessel and Piping Design & Analysis, Marine Engineering, Failure Analysis, Blast Modeling, Security Engineering, Finite Element Analysis, Solid Modeling, Kinematic Modeling, Hydraulics, Computational Fluid Dynamics modeling, Reliability, FMEA and Fitness-For-Service studies, Design of Experiment, Accident Reconstruction, Project Management

2024-current University of Louisiana at Lafayette Lafayette, La.

- Position: Engineering researcher
- Principal Responsibilities: Guest lecture in undergraduate classes, collaborate on research with faculty, develop professional development courses

1992-2020 US Army Reserves (Corps of Engineers Officer)

- Highest Rank: Lieutenant Colonel (Retired), Joint-service ASI 3A
- Assignments:
Engineer staff officer, Deployable Command Post, 412th Theater Engineer Command, Vicksburg, MS
Design Chief, Eastern European Infrastructure Development, 301st FEST, Boulder CO
Commander, 475th Engineer Detachment (Explosive Hazards Coordination Cell), Vicksburg MS
Battalion Commander, 2-411th Log. Spt. Bn., 181st Infantry Brigade (1st Army Div West) Ft. McCoy, WI
Officer In Charge for USACE Resident Office, Gardez AFG. Responsible for construction in 5 provinces, \$350M.
Team Chief, US SOUTHCOM response team of the USACE Contingency Response Unit, Washington DC
Observer/Controller-Trainer, then O/C-T Team Chief. 1st Group, 1st Brigade, 75th Div., Houston TX
Plans Officer, 420th Engineer Brigade, Bryan Texas
Lead Engineer (FCCME), Det. 8, 412th Engineer Command supporting 130th Engineer Brigade, Balad, Iraq
Mechanical Eng. (FCCME) Det. 1, 412th Engineer Command supporting SETAF, US Army Europe
Mechanical Eng. (FCCME), 412th Engineer Command, Vicksburg, MS. AOR: Republic of Korea
Company Commander, A/489th Engineer Battalion (Corps)(Mech), Hot Springs, Ark
Acting Commander, XO, Platoon Leader, 285th Engineer Company (Combat Spt. Equipment) Baton Rouge, La

1997-2005 Kemper Imageering, Inc. Baton Rouge, La.

- Position: Vice President and Principal Engineer
- Principal Responsibilities: Lead engineer, responsible for all work by staff and contract employees.
- Principal Technical Areas: Mechanical design, Machine design, Structural design, Vessel and Piping Design & Analysis (API and ASME), Failure Analysis, Blast Modeling and Analysis, Finite Element Analysis, Solid Modeling, Kinematic Modeling, Computational Fluid Dynamics, Reliability, FMEA, Project Management
Also a paid consultant for CDI Engineering, Baton Rouge, La 2000-2003.

1992-1997 KnightHawk Engineering, Inc., Baton Rouge, LA

- Position: Mechanical Engineer (EIT), later Marketing Director
- Principal Technical Areas: Pipe Stress, Piping & Vessel Design and Modifications (ASME & API), Hydraulics, Finite Element Analysis, Structural Design and Analysis, Machine Design, Kinematics, Field Work, Project Mgt..

1988, 1990-1992 Self-Employed/College Student, Baton Rouge, LA

- Freelance photographer for Baton Rouge Morning Advocate and State Times, Associated Press, various magazines. Freelance writer and graphic designer.
- Self-financed 100% of tuition, books, fees, plus most living expenses. Sr. Cadet, USAR.

1988-1990 U.S. Army, Fort Bragg, NC

- 82nd Airborne Division Public Affairs Office. Assistant NCO in charge, Darkroom Supervisor, Primary Trainer for new personnel. Co-ordinated and executed print and video coverage. Performed photogrammetry analysis for intelligence section. Participated in training as a "player" in urban warfare, combined arms operations, live fire exercises, airborne operations, and air assault operations as well as amphibious operations with the US Marine Corps. Worked with other units, to include 24th Inf. Div., 10th Mtn. Div, Special Forces, and PsyOps.
- The Paraglide. (Post newspaper, circ. 25,000.) Staff writer/photographer, Features Editor, Darkroom Supervisor.

Licenses and Certifications:

Certifications

Certified Fire & Explosion Investigator (CFEI) #23392-15345

National Association of Fire Investigators (7/21/2022)

Diplomate of Forensic Engineering (DFE) (Board-certified Forensic Engineer) #965S

The Council of Engineering & Scientific Specialty Board (CESB) Initial 2017, Senior Grade 2019

Anti-Terrorism Officer (AT Level 2, 3)

Department of Defense (7/10/2006, 18/03/2015)

Combat Life Saver (Tactical Combat Casualty Care)

US Army; Camp Shelby, MS (7/27/2005) and Ft. McCoy (5/4/2013)

HAZMAT and Safety In Transportation

US Army Ordnance Corps (8/15/2005)

Construction Quality Management for Contractors

US Army Corps of Engineers (1/25/2004)

U.S. Professional Engineer (P.E.)

Alabama (#39546-E, 10/01/2020)

Colorado (#57870, 9/15/2020)

Illinois (#62072210, 04/06/2020)

Georgia (#PE052913, 10/3/2024)

Louisiana (#27736, 1/28/1998) *Initial license*

Mississippi (#35054, 08/17/2020)

Missouri (#2022020011, 6/2/2022)

Nevada (#28008, 8/10/2020)

North Carolina (#054730, 7/29/2022)

Texas (#85022, 3/26/1999)

Washington (#20117178, 9/21/2020)

International Engineer

International Board of Forensic Engineering Sciences (#0043, 09/15/2022)

Engineers Australia, National Engineering Register (#8606293, 06/16/2021)

Chartered Professional Engineer (CPEng)

International Professional Engineer (IntPE) (Australia)

Asia-Pacific Economic Cooperation (APEC) Engineer

Member of the Institution of Engineers Australia (MIEAus)

Registered Professional Engineer of Queensland (RPEQ) (#26396, 08/13/2021)

Professional Memberships

American Academy of Forensic Sciences (AAFS) (includes Engineering & Applied Sciences group)

American Association for the Advancement of Science (AAAS)

Army Engineer Association (Life Member)

American Society of Civil Engineers (ASCE)

American Society of Mechanical Engineers (ASME) (includes multiple codes & standards groups)

American Society of Testing and Materials (ASTM)

Forensic Engineering Society of Australia (FESA)

Institution of Engineers Australia (EA)

International Association of Fire Investigators (IAFI)

Institute of Electrical and Electronics Engineers (IEEE) (includes Reliability, Oceanographic groups)

International Society of Explosives Engineers (ISEE)

International Studies Association (ISA)

Marine Technology Society (MTS) (includes Submarine, Diving, ROV groups)

The International Association for Engineering Modelling, Analysis and Simulation (NAFEMS)

National Academy of Forensic Engineers (NAFE)

National Association of Fire Investigators (NAFI)

National Fire Protection Association (NFPA)

Society of Automotive Engineers (SAE)

Society of American Military Engineers (SAME)

Society of Naval Architects and Marine Engineers (SNAME)

Engineering and Technical Experience:

Machine Design and Kinematics

- Evaluation of human/machine interactions, to include object manipulation, equipment operation, or impact.
- Design or evaluation of crane systems for fabrication yard, tractor crawler cranes, and hydraulic cranes.
- Design of lifting plans including modeling loads on hardware.
- Design of mechanical, mechanical/hydraulic, and mechanical/electrical power transmissions
- Design of K12-L0 vehicle barrier (impact and blast resistance) and a novel vehicle arresting fence system
- Design of vehicle mounts and vehicle adaptations, including cars, trucks, trailers, aircraft, ships, and marine craft
- Design of novel subsurface oil recovery system and for downhole tools
- Conceptual design of recycling process, leading to an award of a patent.
- Design, evaluation and redesign of arresting cable and supports.
- Design, analysis, and review of tools, products, equipment, and controls for safety, ergonomics, and reliability
- Design, evaluation and modeling of elevators, walkways, conveyors, and manlifts.
- Design, evaluation and redesign of engines, pumps, fans, and compressors.
- Evaluation and redesign of process agitators and associated equipment.
- Evaluation, design, and redesign of skid-mounted systems and enclosures for equipment, including for lifts
- Evaluation and redesigns of bearings, linkages and power transmissions.
- Design of consumer products, leading to award of patents
- Equipment shock and impact, blast & ballistics
- Welding, fastener, shaft, cam, and spring design and analysis.

Failure Analysis

- Root cause analysis of a failed telescoping platform support in mineshaft.
- Root cause analysis of thermally-induced localized failure of water jacket on a reactor.
- Root cause analysis of a failed piping and pressure vessels.
- Root cause analysis of cracked tubing in heat exchanger, failed furnace tubing, failed process piping.
- Root cause analysis of failed power transmission (gears, linkages) with subsequent redesign.
- Root cause analysis of critical underperformance of water system
- Root cause analysis of failure of protective structures in blast and fragment loading
- Root cause analysis for failed marine and diving equipment.
- Root cause analysis for failed lifting equipment (booms, pad eyes, hooks, links, slings, wire ropes)
- Root cause analysis of biotech cartridge system used in testing biological samples
- Analysis of failed vehicle arresting system prototype with subsequent redesign.
- Analysis of failed bolting on process equipment mounts and structural supports.
- Analysis of failed welds on structural members subjected to upset loads, thermal loads, and fatigue.
- Analysis of failed welds and structural members on dynamically loaded systems, including vehicles, trailers, ships
- Root cause analysis of failed structural members.

Safety, Reliability, and Fitness-For-Service

- Failure Modes Effects Analysis for a variety of static and rotating equipment, vehicles/airframes, and systems
- Piping, pressure vessels, and saturation diving systems (API 579/ASME FFS1 and ASME PVHO)
- Evaluation of a new offshore pipeline laying system.
- Evaluate of tunneling equipment, including “dry diving” pressure vessel
- Evaluation of control systems for ergonomics, safety, and functional logic for industrial equipment.
- Lead investigator for safety reviews (through U.S. Army)
- Reliability study for increasing a compressor's service pressure.
- Reliability study for electro-mechanical controls for movable barrier
- Reliability study for electro-mechanical controls for life support of medical equipment
- Evaluation of equipment and walkways for ergonomic factors and compliance with safety standards.
- Evaluation of a several vehicle arresting barriers, to include predicting response and correlating with test data.
- Reliability study of incorrectly made modifications on API 650 vessel for compliance with API 653 repairs.
- Evaluation of agitators on vessel heads, including non-standard structural supports, composite material heads
- Reliability studies for weapons systems, to include fatigue analysis per HP White Protocols
- Reliability study for a new 55 cubic yard clamshell crane bucket design for 3rd party review.
- Evaluation of supports, clearances, & operation envelopes for equipment lifts, lifting items, and cranes
- Evaluation of static and rotating equipment components, including redesign for safety

- Evaluation of high pressure (10,000 psi) laboratory equipment.
- Evaluation and life prediction of pressure vessels subject to fatigue loads; redesign for enhanced life.
- Evaluation and life prediction of PVHO life support systems, including gas mixes and humidity.
- Evaluation and life predictions for equipment in tunnel-boring machines
- Evaluations of sites for blast, fire, ballistic hazards, and hazardous material release
- Design of Experiment in conjunction with failure analysis/forensics as well as design development
- Biomechanics and numerical modeling of injury modes
- Site evaluations for safety issues in operations, maintenance, material handling, vehicle operations, and other issues

Finite Element Analysis (Structural and Thermal)

- 2D Structural Modeling (stress, strain, deflection, buckling and frequency)
- 2D Thermal Modeling (heat transfer, fluid effects, thermally induced stress)
- 3D Modeling for stress and strain, and deflection (linear and nonlinear), including modeling metals, timber, plastics, rubbers, glass, composites, and complex material interactions such as concrete/rebar and steel/rubber/glass.
- 3D Modeling for fatigue, buckling, and frequency as well as dynamic and post-dynamic modeling.
- 3D Modeling for heat transfer and thermally induced stress (linear and nonlinear)
- 3D Modeling for transient loadings, cyclic loading, creep, and crack propagation
- 3D Modeling for coupled FEA/CFD heat transfer and thermally induced stress (linear and nonlinear)
- 3D Modeling of modeling of assemblies and composite materials
- 3D Modeling of beam, tensile fabric, air beams, cable-supported, truss, and plate structure systems
- 2D and 3D Modeling of electromagnetic fields
- 3D Modeling of multi-physics problems such as fluid flow (CFD) driven heat transfer and the structural effects (FEA) or the forces developed within a linkage assembly (Kinematics) and resultant stress (FEA)
- Expertise in conventional FEA (Solidworks, Cosmos/M, ANSYS, NASTRAN, ALGOR), explicit nonlinear (LS-DYNA, ABACUS), pipe stress (CAESAR II, Pipe Plus), and structural (STAAD)

Pipe Stress and Piping Design, Modification, and Repair

- ASME B31.1, B31.3, B31.4, B31.8, BPE; NFPA 20; API5L, FDA 3-A
- Pipe stress analysis and redesign of piping in tank farms, production units, and transmission lines.
- Static and dynamic analyses with subsequent redesign of process piping, blowdown lines, and emergency systems
- Design and analysis of life-safety piping, firefighting supply, and sanitary systems.
- Site investigations for structural and flow issues; On-site and traditional pipe stress analysis.
- Pipe stress models of process furnaces and cracking units (Borsig, Selas, Kellogg), production units, pipelines

Pressure Vessel & Heat Exchanger Design, Repair, and Modification

- Crude oil storage, Water storage, Chemical storage, Process coils, and Process reactors.
- API 620, 650, 653; API Plan 52/53 pot design; ASME Section VIII (Div. 1, 2, 3). ASME PVHO
- Support for fabricators per ASME Section VIII, App. 47
- Vessel design, optimization, vessel repair (API 653), vessel life expectancy study (API 579/ASME FFS1)
- Design of acrylic elements for pressure vessels (PVHO-1, PVHO-2, Section VIII App. 48)
- Reactors, agitators, separators, and other process-related pressure vessels
- Pressure vessel fatigue, failure, and reliability evaluations
- Pressure vessel design for marine topsides design and blast resistance
- USCG certification for saturation diving equipment (PVHO)
- Life support design for PVHO's (diving, tunneling, submersibles, hyperbaric medical systems)
- Heat exchanger design; heat exchanger component design. (ASME, TEMA, API 660)

Hydraulics, Pumps, Fans, and Fluid Flow (Gas and Liquid)

- Design Audit of hydraulically-operated equipment, including clam shucking plant, vehicle barrier, crane system
- Design Audit of water lines for a nuclear facility, municipal water supply, industrial water supply
- Design Audit of incinerators for air flow, combustion, and feedstock issues, including fans and vane effects
- Design and evaluations of pumps, compressors, agitators, and mixers, to include CFD modeling.
- Design and evaluations of fans, blowers, air handlers, gas nozzles, and gas mixers to include CFD modeling.
- Design audit and redesign of biomedical device for pressurized breathing, including CFD of gas flow and mixing.
- Design and 3rd party reviews for flows involving non-Newtonian regimes including slurries, blood, resins and plastics, and heavy hydrocarbons.

- Flow analysis for marine hulls, ROV, and related equipment, including control surfaces
- Troubleshooting and redesign of filtration systems, to include modeling porous membranes, filter pads, and screens
- Water flow modeling (CFD) for wet wells, pumps, piping, knock out pots, heat exchangers, and screening systems.
- Aerodynamic analysis of commercial trucking equipment attachment, including CFD modeling.
- Aerodynamic analysis (CFD) for subsonic, transonic, supersonic conditions on lifting bodies, projectiles, airframes
- Power calculations, efficiency calculations, and sizing of pumps, fans, and hydraulic equipment.
- Sized and designed piping systems for industrial and utility applications, including hydraulic loss calculations
- Process analysis for fluid and thermal characteristics, including transient and upset conditions.
- Dynamic analysis of process blowdown system.
- Water flow modeling (CFD) for marine hulls and marine structures.
- Gas flow within equipment enclosures with venting to outside, to include CFD modeling with heat transfer.
- Cooling, heating, and gas mix/humidity modeling for HVAC and PVHO life support and equipment loads, including coupled FEA/CFD modeling.
- Fluid flow for sediment knockout system, to include CFD modeling.
- Study of high pressure air distribution header, including CFD modeling.
- Fire and shock wave modeling
- Design review of incineration system, to include CFD of air intake system and combustion area.
- Design of fluid/fluid and gas/fluid heat exchangers, including a one-off diesel-fired system
- Computational Fluid Dynamic modeling liquids and gases for heat transfer, pressure distribution, thermal distribution, velocities, and vorticity. 2-D and 3-D modeling. Newtonian and non-Newtonian flows.

Electrical, Controls, Artificial Intelligence, Machine Learning

- Nominee by NSPE, NAFE for NIST AI Oversight Committee and AI in Law Enf. Subcommittee
- Design of control system for movable barrier system
- Design of control system for medical system
- Design of control system for mobility assistance system
- Review of power distribution for expedient housing
- Programming controls and operations for computer control
- Review of material to be processed for Machine Learning
- Review of Machine Learning outputs to established literature as 3rd party review
- Use of AI and Machine Learning for forensic applications
- Parameter development for uncrewed/autonomous systems
- Design of electromagnetic activation and object manipulation
- Design of equipment in support of commercial power in overseas applications
- Review of power distribution for permanent structures
- Review of medical system for NFPA 99 compliance
- RF field analysis for counter-IED operations, interference studies for electronic security
- Modeling electric surge in circuits
- Control system modeling, including response lag tolerancing
- Electromagnetic field modeling (Finite Element Analysis, equation solvers)
- 3D modeling of lighting system for illumination, then designing power network
- Troubleshooting pump/motor/power issues
- Troubleshooting prototype control systems
- Review of electrical systems for root cause for fire

Structural (Mechanical, Marine, Automotive, and Civil)

- Shell and head calculations for pressure vessels and components. (API, ASME Sect. VIII, Div. 1, 2, 3, PVHO)
- Beam and truss design, analysis, and selection., moment connections for steel structures (AISC)
- Reinforced concrete design, Fiber-reinforced concrete design (ACI), including shotcrete
- Dynamic structural design and analysis for vehicles, trailers, airframes, ships, and marine craft, including impact
- Site investigations, fitness for service, corrosion evaluations
- Design of novel marine hull, including hard points for equipment, lift/launch, and/or weapons
- Evaluation of marine hulls (self-propelled lifeboats, submersible hulls & viewports, ROVs) for structural response
- Evaluation of damaged, corroded, and modified structures (buildings, equipment) for remaining life and loading.
- Design and analysis of plate, rod, piping, tube, and sheet metal applications.
- Design and analysis of metal (steel, aluminum, titanium, copper, exotic alloys), timber, plastic, and composite structures ranging from buildings to airframes and marine hulls to equipment housings and mechanical structures.

- Lifting and hoisting equipment (hooks, links, hard points, etc), lift plans, incl. TIA332, ANSI A10.48, ASME BTH
- Beam and truss calculations and optimization for crane applications. (AISC)
- Structural frames, suspension, and hard points for vehicles, trailers, airframes, ships, and marine craft
- Design for transient conditions such as blast, fire, high winds, seismic, vibration, and snow loads.

Medical Devices, Biomechanics, and Food Grade design

- Prototype development and analysis, patents, for mechanical system to insert a device into a cavity.
- Prototype development and analysis for a therapeutic breathing system.
- Prototype development and analysis for pressure sore reduction system
- Prototype development and analysis for novel therapeutic pressurized habitat
- Prototype development of wheelchair modifications (vehicle anchor system, therapeutic mechanisms)
- Troubleshooting device for USP 71 sterility test protocols, including using nonlinear FEA and CFD
- Design of specialized equipment used in food processing
- Analysis and redesign of plastic foam food packaging
- Industrial design for food service consumer products
- Ergonomics and human factors, usability studies, safety assessments
- Damage mechanisms to humans and animals such as acceleration, impact, shock, blast, fire
- Developed in committee codes and standards for hyperbaric medical systems, including submission procedures

Civil (through U.S. Army Corps of Engineers) (USACE)

- Infrastructure assessment (US, Overseas permissive and non-permissive environments)
- Review of construction plans, site reviews for conformance to construction plans and codes
- Basecamp design and management, facilities management, security management
- Industrial site assessments
- Facility utilities design and management
- Airfield siting, design, and management, both expeditionary and enduring (fixed and rotorwing)
- Concrete walls, slabs, towers, and foundations.
- Fortifications, trusses, walls, towers, buildings, and other structures. (Steel, concrete, masonry, timber)
- Road and runway design, construction, assessment and repair
- Sewer design, including pump stations, gravity lines, inspection chambers, manhole access, and related structures
- Earthmoving operations; pit operations.
- Drainage, Pipeline, Culvert, and Water Control Structure studies, design, construction, and repair
- Bridge design, evaluation, construction, and repair
- Pier, piling, power pole, billboard, signage, and gate design, installation, and maintenance
- Water and sewage design, evaluation, construction, and repair
- Flood and hurricane impact on structures and infrastructure as well as recovery plans
- Explosive and non-explosive demolition, explosive charge design
- Protective structure design, ballistic modeling, fire hazard, explosive hazard, and structural evaluation

Force Protection, Explosives, Fire, Ballistics, and Security Engineering

- Carried out own operation planning and intelligence, planned and executed over 200 “outside the wire” missions in Iraq and Afghanistan, to include changing missions to avoid enemy engagements.
- Analyzed potential and actual effects of explosives, munitions, fires, chemicals, and pyrotechnics on industrial infrastructure, civil infrastructure, vehicles, equipment, products and personnel
- Theater-specific doctrine development for counter explosive hazard operations and planning
- Post-blast analysis of Improvised Explosive Device (IED) and indirect fire attacks.
- Analyzed potential and actual terminal effects of enemy sabotage of critical infrastructure, including blast & fragment analysis, structural analysis, and hazardous material release
- Siting, design, and modification of basecamps, airfields, processing sites, and other fixed or expeditionary facilities to include hazard, construction, vulnerability, environmental, and civil/military impact assessments.
- Analyzed and designed perimeters, gates, and barriers up to and beyond K12 standards, to include lethal and nonlethal effects.
- “Red Cell” planning to war game potential hostile intent and test designs and plans by others, to include estimating potential damage and loss of life in multi-echelon, multi-phase scenarios.
- Analyzed and designed industrial sites, base camps, check points, airfields, and other facilities for vulnerabilities from direct and indirect fire, sabotage, and infiltration, including line of sight analysis, blast analysis, stand off requirements, and terrain analysis with respect to terrain impact on enemy and friendly courses of action.

- Plan, coordinate, and conduct route clearance and route clearance management, to include planning supporting fires, air cover, response teams, and associated requirements at the tactical, operational, and theater levels
- Analyzed vulnerabilities of fuel blivets to sabotage, blast, and combustion, developed revised site design, to include blast analysis from BLEVE, combustion calculations, and heat transfer modeling and calculations.
- Analyzed military and industrial site vulnerabilities to vehicle threat (impact and car bombs) for design of vehicle arresting systems, to include blast modeling and the nonlinear response of structures to vehicle impact and blast.
- Designed industrial and marine equipment to withstand specific blast parameters, including using blast modeling and modeling the nonlinear structural response to blasts.
- Designed shape charges, borehole shots, steel cutting shots, and cratering shots, including initiation sequences.
- Military application of explosives, to include mine warfare planning and supervision, IED awareness, IED defeat, obstacle development/construction/reduction, explosive and mechanical breaching, pyrotechnics, flame effects, boobytraps, and tactical applications. Includes being primary instructor, safety officer, and training planner.

Ethics, Design Principles, and Forensic

- Technical investigations and research, to include incident site investigations and use of drones
- Assessing engineering simulations, artificial intelligence, and machine learning applications for Rule 702 review
- Failure analyses of equipment and equipment components.
- Vehicle kinematics, accident reconstructions and illustrative recreations (vehicles, trailers, airframes, marine)
- Fire and explosive event investigations
- Industrial reconstructions and illustrative recreations, to include equipment operations, lift procedures, ergonomics
- Hazard analysis (blast, ballistics, heat, dropping/falling, fire, chemical release, machinery, operational procedures)
- Reliability studies, Product liability review, Ergonomic reviews, Failure Means & Effects Analysis (FMEA)
- Warnings, labels, instructions, manuals, hazardous communications
- Correlating physical events and mechanics to injury modes and medical evidence.
- Mathematical modeling and computer-based simulations/recreations.
- Site investigations, including post-storm, post-fire, and similar post-event evaluations and data collection
- Technical analysis and interpretation of photographs, videos, and animations, including photogrammetry
- Preparation and production of technical presentations and animations (2-D and 3-D)
- Engineering ethics evaluation
- Intellectual property disputes (patents, proprietary information, trade secrets)
- Independent 3rd party reviews of designs, engineering opinions, and methods; Certificates of Merit

Project Management, Construction Management

- Planned and managed construction and construction support operations worth over \$350M over 5 Afghan provinces
- Planned, managed, executed, and presented engineering projects involving 1-15 technical professionals
- Planned, managed, and executed overseas design projects while working with a dispersed technical team and coordinating with 5 different construction organizations in two countries (300 people involved, \$85 million in work)
- Planned, managed, and executed construction projects involving 5-60 workers and supervisors split over several work sites, including projects in which the sites were located in different states.
- Planned and managed the integration of advanced control systems into various equipment systems and vehicles.
- Developed project framework to enable and integrate AI-based inputs into the system.
- Planned, managed, and executed equipment manufacturing/fabrication projects involving multiple vendors.
- Developed engineering solutions and assisted in planning commercial diving operations
- Planned, managed, and submitted multi-discipline proposals for federal and international projects, to include multi-million dollar USACE Military Construction projects approved by the US Congress for overseas construction
- Planned and managed multi-tracked technical training programs.
- Planned and coordinated emergency response for contingency operations for the US, South America, Europe, the Korean peninsula, and Vietnam
- Planned and supervised military engineering projects to include: concrete retaining walls; drainage rehabilitation; road construction, road improvements; building rehabilitation; runway construction, runway repair, airfield design, basecamp design and upgrades, bridging; explosive and non-explosive demolitions; combat engineer operations.
- Planned and supervised military training for heavy equipment operator proficiency, time management, project management, weapons qualification, counter-IED, anti-terrorism, and deployment operations.
- Evaluated infrastructure in North America, South America, Europe, Asia, and the Middle East

Volunteer Work:

2015-present: University of Louisiana Lafayette (ULL), College of Engineering

- Engineering researcher (since 2024)
- Guest Lecturer

2022-present: Southern University, Baton Rouge, College of Engineering and Science, Guest lecturer

2000-2018: Louisiana State University (LSU), College of Engineering, Capstone Design Course:

- Industrial Review Panel, evaluates senior projects 1st semester (design) and 2nd semester (prototype).
- Provide university-level instruction: engineering ethics; licensure; use of engineering standards
- Provide mentorship to the students throughout the year. Sponsor and coach design teams.

1997-present: ASME and ASME Codes and Standards

- 2008-present: Pressure Vessels for Human Occupancy (PVHO) Committee and Subcommittees
 - 2016-current, Chair, Viewports subcommittee
 - 2019-present Chair, Task Force for “Design By Analysis” for glassy polymers
 - 2017-current, Vice-Chair, General Requirements subcommittee
 - Subcommittees: Viewports, Diving, Submarines, Medical Systems, Design & Piping, General Requirements, Post-Construction, Special Projects Task Group, Tunneling Task Group
- 2023-Present: Verification, Validation, and Uncertainty Quantification Codes & Standards, Subcommittee for Artificial Intelligence and Machine Learning (VVUQ70)
- 2022-Present: Verification, Validation, and Uncertainty Quantification Codes & Standards, Subcommittee for Solid Mechanics (VVUQ10)
- 2019-present: Charter member, Mobile Unmanned Systems (MUS) Codes & Standards
- 2009-2012: Charter member, Risk Assessment and Mitigation for Critical Asset Protection (RAMCAP)
- 1997-1999 Baton Rouge, La. Section Newsletter editor

2017-present: ASTM Codes and Standards Committees

- 2017-present: E58 Committee on Forensic Engineering
- 2022-present: E54 Committee on Homeland Security Applications
 - Vice Chair, E54.05 Physical and Electronic Security

2017-present: National Academy of Forensic Engineering

- 2020-Present: Editor In Chief, Journal of the National Academy of Forensic Engineers
- 2017-2020: Peer Review for Journal of the NAFE; Ethics committee
- 2018-2020: Board Member (Director, Vice President)

2017-present: Marine Technology Society

- 2015-present: Submarines (formerly Manned Underwater Vehicle) member; Editor, technical collections
- 2017-present: Reviewer for Marine Technology Society Journal (Peer Reviewed Journal)

2011-2012: Louisiana Professional Engineering and Land Surveying Board (LAPELS)

- Development team for the Standards of Practices for Mechanical Engineering.

2018-present: National Society of Professional Engineers (NSPE)

- 2023-current Committee on Emerging Technologies
- 2021-current Committee On Policy and Advocacy
- 2019-2023 Software Credentialing Task Force
- 2018-2020 Emerging Technologies Task Force

1992-present: Louisiana Engineering Society (LES), a chapter of the National Society of Professional Engineers

- 1996-2002 Baton Rouge Chapter: Newsletter/PR; Successive elected offices including Chapter President
- 1997-1998 State Chairman for Publicity and Media Relations
- 2017-current: Conference Committee. Assist in organizing and managing several annual conferences
- Participated in MATHCOUNTS, “Engineer in the Classroom” (teaching 7th and 8th graders)

Patents:

- U.S. and International Patents CA2814827A1, CN103209663A, EP2629721A2, WO2012054466A2, WO2012054466A3, EP269721A4, EP2629721B1, US9492312, JP5990524B2 “Methods and Apparatus for Inserting A Device Or Pharmaceutical Into A Body Cavity” (Co-Inventor) US grant date 15 Nov. 2016
- U.S. Patents 8919622, 8919623 "Hands Free Beverage Carrier That Attaches To A Person's Clothing Or A Wearable Accessory" (Co-Inventor), both granted 30 Dec. 2014
- Patent, Republic of Ireland, “Total Municipal Solid Waste (MSW) recovery facility including power generation capability.” Grant Number 84128, grant date 8 Feb. 2006. IE20010276A1, 2002.

IP Development: Developed drawings and other support for client seeking patents. Researched existing patents to assist clients in developing new IP. Examined claims of alleged IP infringement.

Peer Reviewed Papers (* indicates associated presentation)

- Kemper, B. (2023)* “Developing the Role of the System Software Integrator to Mitigate Digital Infrastructure Vulnerabilities.” Report EPR2023028, *SAE EDGE Reports*. SAE International. ISBN/ISSN 0148-7191
DOI: 10.4271/EPR2023028
- Hurd, D., B. Kemper, T. Nappi, K. Williams (2023)* “Review of Life Limitations For Acrylic Windows In Pressure Vessels.” IMECE2023-114381 *Proc. of the 2023 ASME Int'l Mechanical Engineering Congress and Exposition*, Oct. 29-Nov. 2 2023, New Orleans, LA. DOI: 10.1115/IMECE2023-114381
- Kemper, B., K. Williams (2023)* “Deterministic Methods for Verification, Validation, and Uncertainty Quantification in Engineering Code Applications.” IMECE2023-114382 *Proc. of the 2023 ASME Int'l Mechanical Engineering Congress and Exposition*, Oct. 29-Nov. 2, 2023, New Orleans, LA. DOI: 10.1115/IMECE2023-114382
- Kemper, B., P. LaPlante (2023)* “Addressing Software/Hardware Challenges by Incorporating System Software Integrator Certification.” IMECE2023-114384 *Proc. of the 2023 ASME Int'l Mechanical Engineering Congress and Exposition*, Oct. 29-Nov. 2 2023, New Orleans, LA. DOI: 10.1115/IMECE2023-114384
- Kemper, B. (2023)* “Application of VVUQ Concepts to ASME Codes and Standards for Pressure Vessels,” *ASME Verification, Validation, and Uncertainty Quantification 2023 (VVUQ2023)*, Baltimore, MD, USA, May 2023.
DOI: 10.1115/VVUQ2023-108506
- Kemper, B., J. Stromer, (2023)* “Evolving Methods for Design by Analysis for Glassy Polymers in Marine Applications.” *Offshore Technology Conference*, Houston, Texas, USA, May 2023. DOI: 10.4043/32369-MS
- Kemper, B. (2022)* “Artificial Intelligence and Stochastic Terrorism – Should it be done?” 1st Workshop for Assured Autonomy, Artificial Intelligence, and Machine Learning (WAAM), *Proc. of the 33rd Int'l Symposium on Software Reliability Engineering*. (Charlotte, NC) DOI 10.1109/ISSREW55968.2022.00091
- Kemper, B., K. Williams (2021)* “Attempting to Establish Design Margins for Glassy Polymers in Critical Structural Service.” *Proc. of the ASME 202 International Mechanical Engineering Congress and Exposition*. (Vol. 13) *Safety Engineering and Risk Analysis* DOI: 10.1115/IMECE2021-71836
- Kemper, B., L. Cross (2021)*. “Computational Fluid Dynamics Modeling of a Commercial Diving Incident.” *Journal of the National Academy of Forensic Engineers*, 38(1). DOI: 10.51501/jotnafe.v38i1.66
- Kemper, B. (2021)*. “Validation of Modern Finite Methods For Glassy Polymers Using Historical Studies.” *Proc. of ASME Pressure Vessel and Piping Conference, 2021* (Virtual) DOI: 10.1115/PVP2021-62146
- Kemper, B., G. Richards, T. Nappi, V. Thipparthi, A. Escobar. (2021) * “Failure Modes for Acrylic Polymers in Section VIII Pressure Vessels.” *Proc. of ASME Pressure Vessel and Piping Conference, 2021* (Virtual), DOI: 10.1115/PVP2021-62148
- Kemper, B. (2020)*. “Misapplication of Pressure Vessel Codes in Forensic Applications.” *Journal of the National Academy of Forensic Engineers*, 37(1). DOI: 10.51501/jotnafe.v37i1.67
- Kemper, B., L. Cross. (2020) “Developing ‘Design By Analysis’ methodology for windows for Pressure Vessels for Human Occupancy.” *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part B: Mechanical Engineering*, Volume 6, Issue 3, Sept. 2020. DOI: 10.1115/1.4046742

Kemper, B. (2019) “Blast Modeling for Facility Security Management.” *Proc. of the 45th Annual Conference on Explosives and Blasting Techniques*, Jan. 27-30, 2019. International Society of Explosives Engineers.

Kemper, B. (2013)*. “Criteria For Eliminating Cyclic Limit For PVHO Flat Disc Windows.” *Joint ASME/USCG Workshop on Marine Technology & Standards*. DOI: 10.1115/MTS2013-0323

Kemper, B. (2013)*. “Jurisdictional Acceptance of Non-ASME Pressure Vessels for Human Occupancy”. *Joint ASME/USCG Workshop on Marine Technology & Stds*. DOI: 10.1115/MTS2013-0322

Kemper, B. (2007)* “Risk Mitigation and Reliability Lessons Learned From Iraq”. *Volume 14: Safety Engineering, Risk Analysis and Reliability Methods*. ASME, 2007 DOI: 10.1115/imece2007-42142

Kemper, B. (2004) “Evil Intent and Design Responsibility.” *Science and Engineering Ethics*, 10(2), 303--309. Opragen Publishing, 2004. DOI:10.1007/s11948-004-0026-4

Kemper, B. (2002)* "Application of Annealed Cables for Vehicle Arresting Barriers." *Proc. of the ASME 2002 International Mechanical Engineering Congress and Exposition. Safety Engineering and Risk Analysis*. pp. 61-66. ASME. DOI: 10.1115/IMECE2002-32464

Select Conference Papers, Publications and Presentations (*associated presentation)

“How the new Systems Software Integrator fits in the engineering team.” With Derek Gilboe, PE. National Society of Professional Engineers, 2024 Annual Convention, Aug. 8, 2024. (Raleigh, NC)

“VVUQ, the Cure to GIGO in Engineering Simulations.” *28th Louisiana Joint Engineering Societies Conference*, Louisiana Engineering Society, Feb. 29, 2024. (Lafayette, La)

“Media Minefields: Guidance on When, Why and How to Engage with the Media,” with Krista Kemper (KES). National Academy of Forensic Engineers, Winter Meeting Jan. 21, 2024. (Daytona, FL.) Similar presentation made at the *28th Louisiana Joint Eng Societies Conf*, Louisiana Engineering Society, Feb. 29, 2024. (Lafayette, La)

“VVUQ The Pathway For Innovation In Submersibles.“ with Krista Kemper (KES). Marine Technology Society (MTS) *Submarine Symposium*, Dec. 1, 2023 (New Orleans, La.)

“Carbon Fiber Hulls for Submarines –Testing and Design Verification Options.” with Will Kohlen (Hydrospace). Think Tank presentation, *International Workboat Show*, Nov. 30, 2023. (New Orleans, La.)

“Panel Session on the use of Verification, Validation, and Uncertainty Quantification (VVUQ) Engineering Standards in Academia, Gov’t Laboratories, and Industry.” *International Mechanical Engineering Congress and Exposition (IMECE) 2023*, American Society of Mechanical Engineers. Nov. 2, 2023 (New Orleans, La.)

“Artificial Intelligence, Open Source Software, Trust, and their implications in foreign relations.” Also Chair for the panel “Diverse Geopolitical Analysis.” *ISA South 2023*, International Studies Association. (Atlanta, Ga.)

“Industry Leaders’ Perspectives and Outlook of Systems and Software Engineering for the Industrial Engineering Community” Ben Amaba, Sonatype; Leon McGinnis, Georgia Tech University, Atlanta, GA; Dr. Phil Laplante, Penn State University; Dr. Jeff Daniels, Lockheed Martin Corporation; Cliff DeBerry, Memphis Light Gas and Water; Bart Kemper, Kemper Engineering Services, LLC; Andrei Popa, Chevron Technical Center; Kent Welter, NuScale Power; Eren Yilmaz, Black and Decker, Winspyre. Moderator: Krista Kemper, Kemper Engineering Service. *Institute of Industrial & Systems Engineering (IISE) Annual Meeting*, New Orleans, La. May 2023

“Security and Infrastructure Design.” Part of the panel discussion “Complexity & Security: Theorizing Within and Beyond Limits”, International Studies Association Annual Conference, Montréal, Canada. March 2023

“Don’t Do That! Lessons learned in forensic engineering.” *27th Louisiana Joint Engineering Societies Conference*. Lafayette, La. Feb. 2023

Kemper, B.* “The Perils of Using Linear Analysis for Metal Component Failures.” *Proceedings of American Academy of Forensic Scientists 75th Annual Scientific Meeting*, Feb. 16-17, 2023. (Orlando, FL.)

Kemper B.; K. Kemper; Q. Moore; A. San Miguel*. “Advancing Towards Design By Analysis for Glassy Polymers”. *Proc. of 19th Submarine Symp*, Marine Technology Society. Nov. 30-Dec.2, 2022 (New Orleans, La.)

Kemper, B.* “Simulation Triad for Evaluating Use of Engineering Simulation.” *Proceedings of American Academy of Forensic Scientists 74th Annual Scientific Meeting*, Feb. 21-25, 2022. (Seattle, Wa.)

“Throwing the Flag: Guidelines for Assessing Engineering Simulation.” National Academy of Forensic Engineers Winter Meeting, Tucson, Az. Jan. 6, 2022

Kemper, K.; Kemper B.; Cross, L.; Pinner, A.; Thipparthi, V.; Moore, Q.; Escobar, A. “THE ALEXANDER Research Submersible”. OCEAN SHOTS, National Academy of Sciences. Sept. 15, 2021

“COVID-19 Engineering Mitigations and Liability” with Curt Freedman, PE. National Academy of Forensic Engineers Summer Conference, Providence, Rhode Island. July 31 2021

“Modern Capabilities of Forensic Engineering and Technical Expertise.” Presented to the Uzbekistan Republic’s *Suleymanova Centre Of Forensic Expertise*, in collaboration with the UN Office on Drugs and Crime (UNODC) and the American Academy of Forensic Sciences (AAFS). June 30, 2021

Kemper, B.* “Fatal Hyperbaric Treatment Explosion Investigation Incorporating Engineering Simulations with Verification & Validation.” *Proceedings of American Academy of Forensic Scientists 73rd Annual Scientific Meeting* Feb. 15-19, 2021. (Virtual)

Kemper, B., L. Cross. “Developing ‘Design by Analysis’ Methods for Glassy Polymers for Pressure Vessels.” Poster, Pressure Vessel track. *ASME International Mechanical Congress & Exposition*. Nov. 16-19, 2020 (Virtual)

Kemper, K., B. Kemper*. “Debarkation Syndrome as a Technology-Induced Neurological Condition.” Poster, Biomedical track. *ASME International Mechanical Congress & Exposition*. Nov. 16-19, 2020 (Virtual)

“Design by Analysis for Glassy Polymer Structures.” *Underwater Intervention 2020*. New Orleans, La. Feb. 2020

“Debarkation Syndrome and Commercial Submarines.” With Krista Kemper. *17th Manned Underwater Vehicles Symposium*. New Orleans, La. Feb. 2020

“Introduction to Forensic Engineering and the National Academy of Forensic Engineers.” 24th Louisiana Joint Engineering Societies Conference. Lafayette, La. Jan. 2020

Kemper, B.; K. Kemper; J. Cutter*. “NEMO joint design in ASME PVHO Code”. *16th Manned Underwater Vehicles Symp.*, Marine Technology Society, New Orleans, La. Feb. 2019. DOI: 10.13140/RG.2.2.24600.85768/1

Kemper, B.* “Shortfalls in polymer specifications for PVHOs.” *Proceedings of Underwater Intervention 2019*. New Orleans, La. Feb. 2019. DOI: 10.13140/RG.2.2.32884.60807/1

Kemper, B., Cross, L.*, “Heat Retention and Structural Integrity of Glassy Polymer Windows,” 15th Manned Underwater Vehicle Symp., Marine Tech. Soc., New Orleans, LA, Feb. 2018 DOI: 10.13140/RG.2.2.36321.02405

Kemper, C. “Truck Bombs and Standoff: Using Blast Modeling for Installation Threat Management.” Engineer, The Professional Bulletin of Army Engineers, Sept-Dec. 2017

“Forensic Investigation of Oxygen Chamber Fire”. ASME PVHO Codes & Standards, San Diego, CA Feb. 2017.

“Design of Undersea Viewports for Pressures over 10,000 PSI.” With Linda Cross, EI. 14th Manned Underwater Vehicles Symposium, Underwater Intervention, New Orleans, February 2017 DOI: 10.13140/RG.2.2.10758.27204

“Use of Finite Element Analysis in Designing Acrylic Structures for Fatigue and Stress.” With Krista Wohlfeil 13th Manned Underwater Vehicles Symposium, , New Orleans, February 2016. DOI: 10.13140/RG.2.2.26146.12482/2

“Contracting Engineering & Construction in Expeditionary Environments.” 20th Louisiana Joint Engineering Societies Conference. Lafayette, La. Jan. 2016

“Novel Subsurface Oil Recovery System Concept.” With Krista Kemper. Underwater Intervention 2013, New Orleans La, Jan. 2013.

Wohlfeil, K., Kemper, B.* “US Coast Guard Acceptance of Non-ASME Pressure Vessels for Human Occupancy.” *Proceedings of Underwater Intervention 2012*. Published by the Marine Technology Society, Jan. 2012.

Kemper, B. “Mitigating Potentially Weaponized Natural Phenomena.” *Responder Rundown Newsletter*. CBRNE Resource Network. Dec. 2011.

“Introduction to Engineering Codes & Standards” Presented to the LSU Mechanical Engineering Senior Capstone Design course. 2010 - 2012, 2015 Also University of Louisiana (Lafayette), 2015-2022, Southern University (Baton Rouge) 2022

Kemper, B., Wohlfeil, K. "HE Sorbent/Barrier Belt Independent Technical Review". May 2010 Report number: ONX100510. DOI: 10.13140/RG.2.2.32411.36646

"Performance Based Standards: The New Approach" 14th JESC, Jan. 2010 in Lafayette, La.

"Introduction to Security Engineering." 13th Joint Engineering Societies Conference, Jan. 2009 in Lafayette, La.

"Engineering Lessons Learned in Iraq." 11th Joint Engineering Societies Conference, Jan. 2007 in Baton Rouge, La. as well as to the Baton Rouge Section of ASME December, 2008.

Kemper, C. "More Than Management." *Engineer, the Professional Bulletin of Army Engineers*, July-Sept. 2006

Kemper, C. "Building a Construction Management Section for Iraq." *Army Engineer Magazine*, July-August 2006.

"Using Advanced Engineering Software in Forward Deployed Areas" US Armed Forces Base Camp Design Workshop, May 2005 at the United States Military Academy, West Point NY.

"Evil Intent and Design Responsibility." Ethics in Engineering Conference, Oct. 15, 2003, New Orleans, La; 7th Joint Eng. Soc. Conf., Feb. 2004, Baton Rouge, La.; US Base Camp Design Workshop, West Point NY April 2004.

"Professional Licensure and Ethics." Regional speaker for the National Council of Examiners for Engineering and Surveying (NCEES), 2001-2003. Exam review and validation May 2002.

"The New Professional Engineer Exam." Presented to the Baton Rouge Section of ASME Nov. 2002.

Selected and participated in reviewing and validating the U.S. national Principles and Practice Examination for Mechanical Engineering. (NCEES, Atlanta, Ga. May 2002.)

"Professional Licensure and Ethics." Regional speaker for the National Council of Examiners for Engineering and Surveying (NCEES), 2001-2003.

Webinars and Podcasts

"How to be a Top-Notch RIC (Responsible in Charge) in AEC Projects," with Nick Heims, P.E., Engineering Management Institute (EMI). May 27, 2024.

"Cybersecurity and Trust: Experts discuss data privacy in aerospace and automotive industries," with Dr. Ahmed Qadeer (Ohio State Univ.). Society of Automotive Engineers (SAE). Feb. 13, 2024

"Something Offbeat: How far could you get in a floating hamster wheel," with Dean Ovel. Discussion of the case of Ray Baluchi and his attempts to cross the Atlantic in a "floating hamster wheel." Nov. 13, 2023.

"Professional Engineering Ethics, Risk, and Liability with Technology," with Dr. Jeff Daniels (Lockheed Martin) and Cate Richards (Sonatype). National Society of Professional Engineers (NSPE). Oct. 25, 2023. Part of the NSPE permanent collection for presentations for Professional Development Hours (PDHs) for ethics

"Nourishing Work-Life Alignment in the 'New Normal'" with Luis Duque and Melody Gonzalez. American Society of Civil Engineers (ASCE) Virtual Roundtable. Sep. 22, 2022.

"Building Your Credentials Through Publication and Review." National Academy of Forensic Engineers (NAFE). Originally aired Jan. 10, 2021, NAFE Winter Meeting (Remote), now part of NAFE continuing education library

Committee Publications:

ASME MUS-1-2024 Use of Unmanned Aircraft Systems (UAS) for Inspections. Main committee member and member of all subcommittees. American Society of Mechanical Engineers, NY NY, 2024.

Emerging Technology: A Public Regulatory Policy Guide. Member of the Emerging Technology Task Force. National Society of Professional Engineers. September 2020.

ASME PVHO-1-2023 Safety Standard for Pressure Vessels for Human Occupancy (An American National Standard). Main committee member and member of all subcommittees. American Society of Mechanical Engineers, NY NY, 2023. Also co-authored the 2012, 2016, 2019 versions.

ASME PVHO-2-2019 Safety Standard for Pressure Vessels for Human Occupancy: In Service Guidelines (An American National Standard). Main committee member and member of the Post-Construction subcommittees. American Society of Mechanical Engineers, NY NY, 2019. Also co-authored the 2012, 2016 versions.

Journal of the National Academy of Forensic Engineers. ISSN: 2379-3252 Editor In Chief, 2020-current; Associate Editor, Peer Reviewer 2017-2020

Guidelines for Engineering Standards of Practice for the Design of Mechanical Systems, Louisiana State Board of Registration for Professional Engineers and Land Surveyors (LAPELS). January 2012. Updated Jan. 2022.

STP-PT-047 Principles of Safety and Performance for Medical Hyperbaric Chambers: Guidelines for Regulatory Submissions. Member of the ASME PVHO Subcommittee on Medical Hyperbaric Systems. June 30, 2011

Technical Review:

Journals (and technical society, if applicable):

Journal of the National Academy of Forensic Engineers (ISSN: 2379-3252) (NAFE)

Marine Technology Society Journal (ISSN: 0025-3324) (MTS)

Recent Innovations in Chemical Engineering (ISSN: 2405-5204)

Reliability Magazine (ISSN: 2641-8819) (IEEE)

Ships and Offshore Structures (Print ISSN: 1744-5302 Online ISSN: 1754-212X)

Hoogendoorn, Eelco. SeaSteading Engineering Report Part 1: Assumptions & Methodology. February, 2011

Genter, David Paul. Systems Design Engineering: A Holistic Requirements-led Approach to Concept Design. No. EPR2024024. SAE Technical Paper, 2024. (ISBN 978-1-4686-0887-8)

Cited as Primary Source:

US Coast Guard Marine Board of Investigation hearings regarding OceanGate and the Titan Submersible fatalities. Pro-bono report to the board as lead investigator of a multi-discipline team. Testimony given on Sept. 25, 2024. (<https://www.youtube.com/live/YupblW5tgiM>, starts at time 6 hrs 47 minutes)

Multiple interviews, US and International media regarding TITAN Submersible tragedy. June-August 2023

UK Patent GB2600490A, "Oil capturing apparatus" Robert Brian Ablett. 04 May 2022

Laplante, P., Amaba, B., "Artificial Intelligence in Critical Infrastructure Systems" in *Computer*, Vol. 54, No. 10, pp. 14-24, 2021. DOI: 10.1109/MC.2021.3055892

Evans, D., Willis, J. "How Small Arms Capabilities Shape Decisions at Battalion and Brigade Level". DTIC Accession Number ADA56719 Report date 27 Sept. 2012.

Thompson, K. T., & Trainor, T. E. "Developing Base Camps to Support Military Operations Worldwide". *Proceedings from the 2005 ASEM National Conference*, Virginia Beach, VA

Select Conferences:

4th Annual International Scientific and Practical Conference (Kyiv Scientific Research Institute of Forensic Expertise), Kyiv, UKR, 2022

1st Workshop for Assured Autonomy, Artificial Intelligence, and Machine Learning, Charlotte NC 2022

US Decade of the Ocean Launch (National Academies of Sciences, Engineering, Medicine), Virtual, 2021

7th World Congress of Biomechanics, Boston, MA 2014

US Armed Forces Base Camp Design Workshop, West Point NY 2004, 2005

2nd International IED Defeat Workshop, Fort Irwin CA 2005

Ethics and Social Responsibility in Engineering and Technology, New Orleans LA 2003

American Academy of Forensic Scientists

Annual Scientific Conference of AAFS; 2021-2024

American Society of Industrial Security

Physical Security: Advanced Applications and Technology; 2005

American Society of Mechanical Engineers

International Mechanical Engineering Conference and Exposition; 2002, 2007, 2020, 2021, 2023
Pressure Vessel and Piping Conference; 2021
Joint ASME/USCG Workshop on Marine Technology & Standards; 2008, 2013
Verification, Validation, and Uncertainty Quantification; 2021, 2023

International Studies Association

ISA Annual Meeting; 2023 (Montréal, CAN)
ISA South; 2023

International Society of Explosives Engineers

Annual Conference on Explosives and Blasting Techniques; 2019

Louisiana Engineering Society

Joint Engineering Societies Conference; 1995-2001, 2004, 2007-2011, 2016, 2020, 2023-24

Marine Technology Society

Offshore Technology Conference, Houston, TX 2011, 2012, 2023
Submarine Symposium (Underwater Intervention, New Orleans, LA); 2012-13, 2016-20, 2022-23

National Academy of Forensic Engineers

Winter Conference; 2017-2024
Summer Conference; 2021, 2023, 2024

National Society of Professional Engineers

NSPECon; 2023, 2024

Honors and Recognitions:

Fellow, National Society of Professional Engineers (April 2023)

Dudley Hixon-Bobby Price National Professional Achievement Award, Louisiana Engineering Society (Feb. 2023)

Fellow, American Society of Mechanical Engineers (March 2022)

ASME Certificate of Acclamation for contributions for the Safety Standard PVHO-1: 2016 (October, 2016)

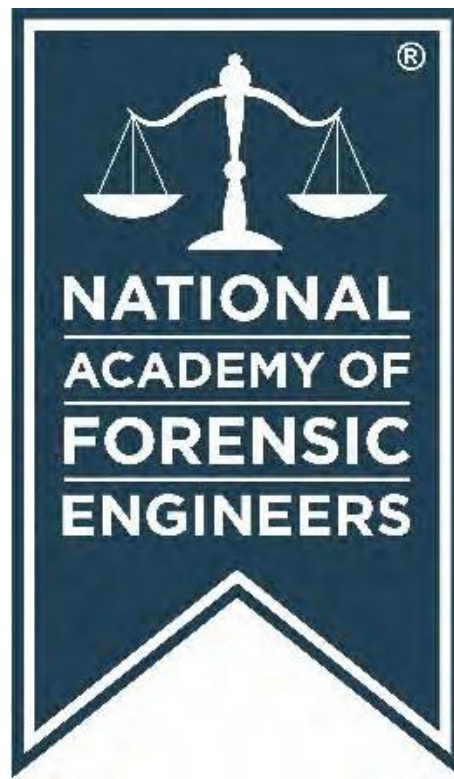
2007 Army Engineer of the Year; Top Ten Federal Engineer of the Year (NSPE's Federal Engineer of the Year recognition program, presented 22 Feb. 2007 at the National Press Club, Washington DC)

Young Engineer of the Year, Baton Rouge Chapter of the LES, Feb. 2000

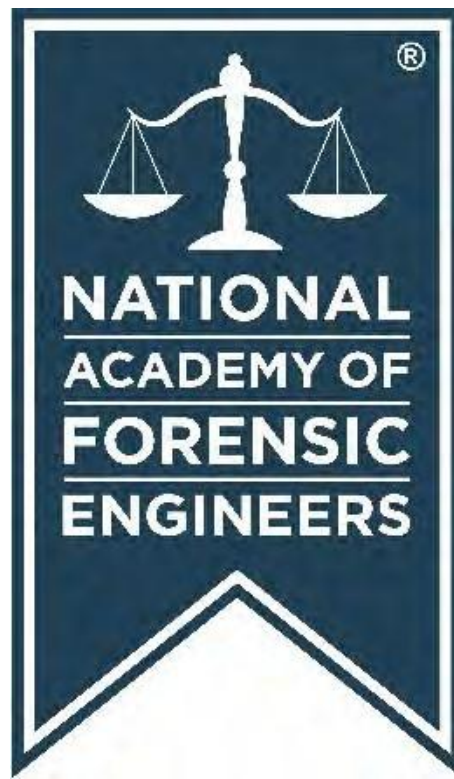
Chrome Shaft Award. Presented by the LSU Mechanical Engineering Faculty. May 1992.

Military awards include: Bronze Star (w/Oak Leaf Cluster), Meritorious Service Medal (w/2 Oak Leaf Clusters), Army Commendation Medal (w/Oak Leaf Cluster), Humanitarian Service Medal, NCO Development Ribbon, Combat Action Badge, Basic Parachutist Badge

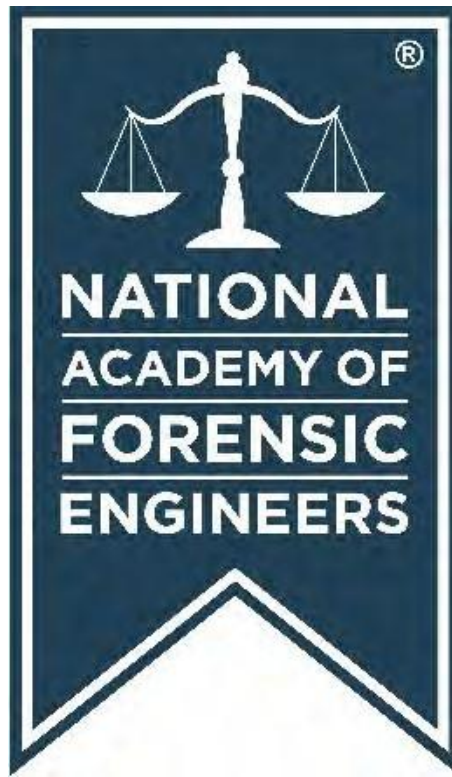
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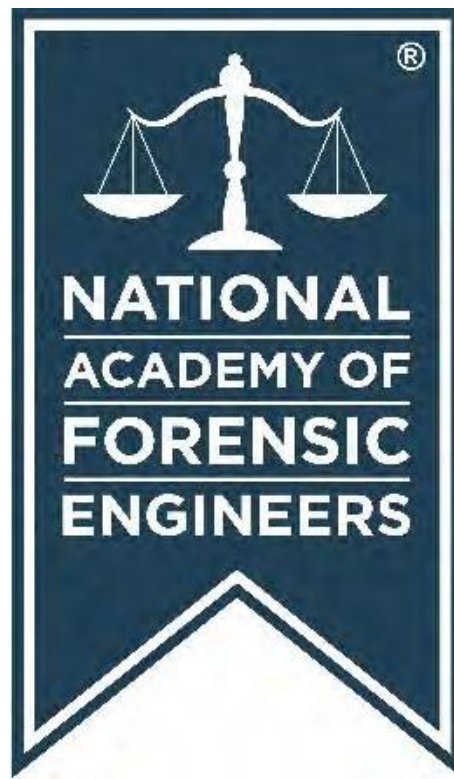
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