Arkansas Academy of Industrial Engineering
Strategic Plan 2015

In alignment with:
University of Arkansas
Department of Industrial Engineering
Strategic Plan 2015
Version 9

Background & Introduction

The Arkansas Academy of Industrial Engineering (AAIE; the Academy) was established in 1986 to recognize the achievements of University of Arkansas (UofA) Industrial Engineering graduates and to provide continuing guidance and support to the Department of Industrial Engineering (INEG; department). AAIE has year over year grown its efforts to support and promote the department’s faculty, staff and students

A number of previous efforts create a basis this document:

- **October 2001** Ron Morris outlined the department’s needs and proposed what AAIE might be able to provide.
- **April 2002** Additional ideas and goals were listed – touching on scholarships and membership participation.
- **July 2002** A total of 38 items were discussed in the board meeting.
- **February 2003** A proposal focused on membership growth.
- **October 2003** Ron Morris and Larry Stephens submit to the AAIE board a final report, which includes actions by the board and a summary of a meeting with Dean Saxena

In April 2008, a Strategic Plan Task Group was appointed. In October 2008, Jim Hawkins and Dewey Freeman submitted a list of some strategic planning issues and called on the board to revisit the previous plan. However, a new department head, Dr. Kim Needy was named in 2008. She was granted the time to meet with the faculty and focus groups to develop a new INEG strategic plan. An overview of this plan was presented to the AAIE board in July 2010.

The current AAIE Strategic Planning Committee was identified at the Fall board meeting in September 2011. The committee first met via a webmeeting on 9/9/2011. Present were Grant
DuCote (Chair), Bryan Grimsley, Tarek Taha, Jim Burgin, Lee Hartz, Dr. Kim Needy and Ralph Sandage. The committee began by reviewing the department’s strategic plan, dated June 7, 2011. In that review, the committee noted which areas the Academy could assist. On July 6, 2012, Kim, Grant and Bryan met to initiate the document format seen here. Draft version 2 was reviewed at the summer board meeting on July 21, 2012. Draft version 3 was reviewed by the committee and other initiative owners in a webmeeting on July 30, 2012. Draft version 4.1 was compiled in October 2012 and reviewed at the fall board meeting.

Assumptions

1. The Academy’s plan is in support of the departmental strategic plan. Any major changes to the department plan could trigger a revisit of the academy’s plan.
2. The Academy’s plan will align with the time frame of the department’s plan.
AAIE Core Competencies:
1. Industry contacts (network)
2. Money
3. Industry knowledge / talent
4. Department legacy / institutional knowledge
5. Recruiting / sourcing (department visibility)

Areas of Focus / Influence:
Department of Industrial Engineering Strategic Plan

The committee reviewed the Department of Industrial Engineering Strategic Plan to identify areas to focus our activities. The department’s mission, and thus its strategic plan, focuses on five objectives: 1) Undergraduate education, 2) Graduate education, 3) Research, 4) Service and 5) Department visibility.

Our goal is to support their mission and align with their objectives. We have attempted to identify areas where the Academy can help and be most effective.

AAIE Strategic Plan

We came up with 22 ways in which we currently or potentially can contribute to INEG and boost the academy. They are listed below as initiatives, following the department’s goal.

Dept Objective - Undergraduate Education:

- **Student Quality and Diversity (Goal #3).** The undergraduate program will recruit a high quality and diverse student population. A diverse student body for example with respect to gender and ethnicity will make our program stronger as each group brings together a different perspective.
  
  b) The department will successfully recruit between 10-20% of the eligible freshmen class into industrial engineering

1. **Academy Initiative: Scholarships**
   
   - AAIE scholarships are allocated for use by the INEG department subject to the terms of the respective endowment agreement letter. The INEG faculty scholarship committee approves the scholarship recipients based upon the criteria of the committee for merit awards. The committee has the flexibility within the terms of the endowment letter to make awards to students for the purpose of retention and recruitment of students to INEG.
   
   - AAIE will support development opportunities that undergird the Department's aspirational diversity goals. Potentially, opportunities for new endowments will be considered and pursued during the next five years.

2. **Academy Initiative: A-FOR-U (Academy Focused on Recruitment/Retention of INEG Undergrads)**
   
   In Scope: Academy initiatives focused on recruitment of Freshmen into INEG (INEG Branding, WOW project, Decision Day) and retention of Sophomore-Grad Students (Resume Workshop, Mock Interviews, Internships, Co-ops, Student Seminars)
   
   Not in Scope: Scholarships, also a recruitment and retention initiative, are handled under another Academy Initiative
Activities: Brand/Market IE. Publicize to high school students and freshmen. Support INEG on Freshman Decision Day. Work with INEG and the College of Engineering (COE).

- **Student Placement (Goal #5).** Undergraduate students will be placed upon graduation. Placement of students into careers locally in Arkansas as well as abroad in other states and across the globe, as well as placement into graduate programs of the student’s choosing will re-enforce the high caliber of student that we have.
  a) 90% of undergraduate students seeking a job immediately upon graduation get a job in an IE-related field within one year of graduating.

3. **Academy Initiative: A-FOR-U**
   
   In Scope: Academy initiatives focused on graduating students’ readiness for a career (Resume Workshop, Mock Interviews, Internships, Co-ops, Student Seminars, Senior Design Project Mentors and Design Reviews)
   
   Activities: Identify other ways to make the Academy visible to students — create a post-graduate goal for them to be in the Academy. Connect with former students through LinkedIn. Partner with INEG in post-graduate contact.

- **Undergraduate Student Experience (Goal #6).** Undergraduate students will be exposed to a wide array of experiences including study abroad, work experience, research experience and professional societies. It is through this experience that students will be best prepared for practicing engineering in a global environment.
  a) 25% of undergraduate INEG students obtain a global studies experience while obtaining their BSIE.

4. **Academy Initiative: Global Studies**

   Increase the student global experience by providing funding for student foreign studies.
   
   Goals:

   - **Student participation** - attract 8 students per year to receive a GSE scholarship for use in obtaining this global studies experience.
   - **General Fundraising** - In order to provide the increased number of GSE scholarships, the GSE committee proposes to raise $200,000 for the GSE principal account during the strategic plan period of 5 years

   b) At least 75% of undergraduate students complete a professional internship or co-op upon graduation.

5. **Academy Initiative: Provide access to companies and corporate opportunities**

   AAIE members in the past have hosted various student opportunities at their companies, but students do not have organized access to AAIE members in their corporate roles, and vice-versa. AAIE can facilitate this organized connection between our members and students and can include —

   - Networking connections via email/phone for professional insights
   - One-day job shadowing
   - Short-term (< 3 days) company overviews
   - Longer-term (3-6 months) internships
The expected goals of these experiences include students’ real-life introductions to IE roles as well as cementing their excitement about IE and making connections for longer-term internships.

c) The department will hold at least 2 professional society events per year for the students to participate in.

6. **Academy Initiative: Support professional society events**
The Academy will utilize its considerable network of experienced IE professionals to work with the department to identify and provide support for events that would enhance the student learning process. Types of support could include but are not limited to providing guest speakers, facility tours and financial support.

Dept Objective - Graduate Education:

- **Faculty Commitment (Goal #1).** The faculty will exhibit a strong commitment to the graduate program. The success and reputation of our program will be measured to a large extent by the strength of our graduate program.
  
c) The MSOM professional program will continue its rapid growth to 500 enrolled students, graduating at least 200 per year

7. **Academy Initiative: Teaching course modules**
AAIE members have diverse knowledge that can be leveraged by the IE department to help engineering concepts come to life with examples and stories of how those concepts are being used by business and industry. AAIE members’ areas of expertise need to be cataloged and made available to the IE faculty to provide an opportunity, if desired, to use the members as guest lecturers.

AAIE members should consider teaching in the MS Operations Management courses. This coursework is designed for the working professional seeking to increase their knowledge and ultimately increase their career competitiveness. The varied backgrounds of AAIE members that may be interested in teaching could marry business concepts with real life experiences to enhance the program’s offerings.

- **Student Quality and Diversity (Goal #2).** The industrial engineering program will recruit a high quality and diverse student population. The Operations Management program will continue to maintain its quality and diversity. A diverse student body for example with respect to gender and ethnicity will make our program stronger as each group beings together a different perspective.
  
b) The industrial engineering program will seek a diverse graduate student body including at least 10 U.S. students from underrepresented groups

**Note:** See AAIE scholarship assistance in Initiative #1. The same process applies to both undergraduate and graduate students.
• **Student Placement (Goal #4).** All Ph.D. and MSIE graduates will be placed upon graduation in academic or professional positions within 1 year. This will increase the visibility of our program and the caliber of our students.
  
  c) Graduates who choose professional careers will be prepared to compete for positions with Fortune 500 companies, national labs, and government agencies - locally, nationally or internationally

**8. Academy Initiative: Support student placement**

AAIE should provide support to Industrial Engineering graduates in finding employment. Like the diverse career opportunities available to Industrial Engineering graduates, AAIE members have broad backgrounds in many businesses and career fields. Many have gained high standings within their companies and industries. AAIE leadership should ensure members are aware of the high quality of the graduates produced by this award winning program. AAIE, in concert with the IE faculty and staff should develop a partnership to align business’ needs for new talent with the skills and desires of the graduates.

**Dept Objective - Research:**

• **Research Publications and Presentations (Goal #2).** As a way of validating the impact of their research and exposing it to the wider community, faculty will publish their work and present it at technical conferences and other invited venues.

  b) The tenure/tenure-track faculty members will also make a total of at least 40 conference research presentations per year, either as individuals or jointly with their students.

**9. Academy Initiative: Assist with funding trips for faculty to make presentations**

The prestige of the department and its ability to continue to attract top notch talent is important for long term stability. The Academy should assess the operational budget and determine if funds can be made available to offset travel expenses for faculty as they attend professional functions for the purpose of presenting technical papers or reports.

• **Collaboration in Interdisciplinary Projects and Centers (Goal #3).** Recognizing the need to support robust research efforts in the department’s agreed upon focus areas of transportation & logistics, healthcare systems, and quality control & reliability engineering, interdisciplinary collaboration on these topics is essential.

**10. Academy Initiative: Assist with corporate memberships to centers**

Use communiques through AAIE LISTSERV, Dodec, etc. as opportunities to encourage members to help recruit sponsors/memberships in research centers.

**Dept Objective - Service:**

• **Leadership (Goal #1).** Faculty will serve in leadership roles to improve department visibility and to influence the profession.

**11. Academy Initiative: Support the department and AAIE members as they pursue national positions in an effort to promote the Department’s visibility.**

- Dr. Needy elected IIE president Feb-2012
12. **Academy Initiative:** Help retain good faculty talent

AAIE should consider funding an award to recognize a junior faculty member. With the recognition the IE program is receiving nationally, our young faculty will be on the radars of other programs. Despite the high quality of the junior faculty, it is difficult for them to compete with their senior colleagues for the current awards. To enhance retention of the “rising stars” in the department, AAIE should attempt to set aside some funds to sponsor an award to recognize the department’s young faculty.

- **Institutional Service (Goal #3).** Faculty will provide service to the institution as a means of strengthening it.
  - a) At least 50% of faculty will serve on committees or task forces at the College or University levels

13. **Academy Initiative:** Encourage the involvement of AAIE members on College of Engineering and university-wide committees or taskforces, to provide representation and visibility for the department.

**Goals:**
- Identify potential committees/taskforces before 2013 annual meeting (Work with Kim, Kellie Knight, etc. to develop list.)
- Increase member involvement on identified committees prior to 2014 annual meeting.
- Canvass members prior to the 2013 annual meeting to identify service in industry related, non-university organizations that would benefit and could be leveraged by the IE Department.
- Encourage dialog between IE Department and AAIE members regarding members’ interest in serving on internal and external committees, taskforces, boards, etc. -- to be prepared for service opportunities that may arise.

**Dept Objective - Visibility**

- **Alumni Visibility (Goal #4).** Alumni will achieve visibility at the national and international levels. Increased alumni visibility will improve the department visibility.
  - a) The AAIE is viable with 200 active members.
  - b) Scholarships will be awarded to our students from the AAIE and through other departmental resources totaling $50K/year.
  - c) The AAIE will induct on average 10 new members per year.

14. **Academy Initiative:** Increase membership

Currently, <180 active members; average inductee class < 8
Keep a “watch list” for up & coming graduates with < 15 years of work history.

- The membership chair will send a list out to all members (AAIE LISTSERV) noting the status of commitments and how many are needed to reach our goal at the beginning of each month in October, November, and December.
- An electronic copy of the DODEC would be sent out once a year to alumni that will become eligible in the next 5 years and have been identified by the membership as potential candidates. The email would explain they are receiving the copy as a way to familiarize themselves with the organization and see it as the vehicle to stay connected to the UofA and the IE department.
15. **Academy Initiative:** Remote gatherings
   Promote meetings or social gatherings among University of Arkansas IE Alumni in different locations in the state and region. This will serve to promote community among IE Alumni and to reconnect the IE Alumni that have moved out of Northwest Arkansas with the IE Department and the University.
   - Utilize or join with the Arkansas Alumni Association to locate and contact IE Alumni in different regions. Possibly form a new AAA Society for IE.
   - Seek sponsorship from an IE Alumni for sponsorship and hosting the meeting.
   - An IE department representative and a representative from AAIE would attend the meeting.

16. **Academy Initiative:** Member involvement
    Create a vehicle for increased member involvement in Academy activities. All newly inducted members will be assigned to ‘shadow’ a committee (SHUR, scholarship committee, global studies, membership, etc.). This will be a passive assignment made by the membership chair, consisting of receiving any updates on activities and becoming familiar with how AAIE operates.

17. **Academy Initiative:** Publish a newsletter, the DODECAHEDRON
    The DODEC is a conduit to inform members of activity within the Academy and the department. The Academy President and Department Head will provide articles containing updates from their perspectives. Each Committee Chair (Scholarships, Global Studies, SHUR and Membership) will submit an article to inform readers of activities, challenges and/or opportunities. Also included will be notices of members who have made the news and tributes to any who have died. Depending on space, there will be one and sometimes two “feature” articles. These articles are used to strengthen ties between the department, the academy and other stakeholders, such as organizations or individuals who are strategic partners. The goal is to honor and highlight their contributions to the academy, the department and to the students. Another use of the “feature” article will be to inform the readers about new technological developments or initiatives within the department or involving academy members. The use of the “feature” article is dynamic and will be adjusted to meet the current needs of the academy.

18. **Academy Initiative:** Maintain a website, http://aaie.ineg.uark.edu/AAIE/Home.html
    The website is the primary source for members and the public to receive information about the Academy. Features will be added and deleted according to usefulness and demand. In addition, the Academy will begin to assess and perhaps utilize other forms of social media such as LinkedIn, Facebook, Twitter, etc.

   - **Department Visibility (Goal #5)**

19. **Academy Initiative:** Help with staff awards
    The Academy provides one faculty and two staff awards each year at the AAIE banquet in April. The AAIE Faculty Member of the Year Award winner receives a monetary award of $2,500 and a plaque. The two AAIE Outstanding Staff Member Award winners also receive a plaque and a
monetary award of $1,500 each. The purpose of the faculty award is to honor excellence in teaching, research, service, collegiality (defined as actions and efforts for improving spirit and morale in the department, creating a conducive work environment, promoting collaboration, enhancing mutual respect, projecting a positive image for the department, etc.) The goal of the two staff awards is to recognize and promote excellence in customer satisfaction, actions and efforts for improving spirit and morale in the department, contributions that improve the department operations and/or enhance the departmental image, and innovative ideas for process improvements.

20. **Academy Initiative**: Chair the Department Liaison committee
AAIE supports the IE Department on an annual basis to help assess the department’s performance and effectiveness. This support is provided by the president-elect, president and past president attending the annual Liaison Committee, with the past president chairing and facilitating the committee. The past president also facilitates a written and verbal post-committee report to the department head.

Other
21. **Academy Initiative**: Benchmark other academies
A Departmental Academy Forum was held 4/20/12, facilitated by the AAIE president.

*Follow-up activities: Provide comparative data to BOD to identify best practices across the COE academies. Work with the COE development office to glean more data from the other academies.*

22. **Academy Initiative**: AAIE president sits in COE dean meetings
Grant Ducote attended the Dean’s Advisory Council meeting on 4/20/12. Plans are for the standing president from each UofA COE academy to attend this meeting each spring.

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### Revision History

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