

Conference Proceedings

NAMEPA/WEPAN 2001 Joint Conference

April 21 – 24, 2001

Alexandria, Virginia

Co-Champions for Diversity in Engineering

Proceedings Production

EP Innovations, Inc.

Lafayette, In

Dan Budny

Goranka Bjedov

Published By:

Stipes Publishing L.L.C.

204 W. University Avenue

Champaign, Illinois 61824

Phone: 217-356-8391

Email: stipes@soltec.net

Website: www.stipes.com

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Edited by

Dr. Mary R. Anderson-Rowland

Associate Dean of Student Affairs
College of Engineering and Applied Sciences
Arizona State University

Rebecca M. Dockter

College of Engineering and Applied Sciences
Arizona State University

NAMEPA/WEPAN 2001 Joint Conference

**April 21 - 24, 2001
Alexandria, Virginia**

Co-Champions for Diversity in Engineering

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Awardees from this year's research and program awards have the opportunity to share
information about their research and programs.

NAMEPA'S HISTORY

Abbreviated

INTRODUCTION

The National Association of Minority Engineering Program Administrators (NAMEPA) and the Women in Engineering Programs & Advocates Network (WEPAN) will host a joint national conference in Alexandria, Virginia on April 21-24, 2001. The theme of the 2001 joint national conference is "Co-Champions for Diversity in Engineering." Conference attendees will have the opportunity to celebrate the second annual gathering of NAMEPA and WEPAN and explore issues critical to the success of both organizations. Both NAMEPA and WEPAN were created to address the needs of women and minority students studying engineering.

BACKGROUND HISTORY OF NAMEPA

Students of color enrolled in colleges and universities across the nation were under-represented during the 40's and 50's. Very few, if any, of these students received their degrees in science or engineering disciplines. These statistics carried over into the mid-sixties and did not begin to change, to any significant extent, until the late sixties.

A number of social factors, including the riots in Watts, the assassination of Dr. Martin L. King, Jr. and the civil rights movement contributed to the efforts to increase the representation of "new students" on campus. If these students were under-represented in higher education, one could conclude they were also under-represented in America's workforce. And, that we were also grossly under-represented in upper-management positions in the Corporate/Industrial Sector.

One corporate manager, Stan Smith, CEO of General Electric, recognized the disparity in his own company (1972) and other companies, called for a "ten-fold" increase in the number of minority students (African American, Hispanic, and Native American) enrolled in engineering programs nation wide. This ambitious challenge led to a partnership between institutions of higher education (Colleges of Engineering) and some member of the corporate sector. Participating companies provided funds to recruit, retain, and graduate minority engineering students. The "Minority Engineering Effort" as it was later called, led to the formation of a number of organizations designed to provide new leadership in support of the "Effort".

There were three national organizations:

1. The National Fund for Minority Engineering Students, under the leadership of Garvey Clarke, headquarters New York City,

2. The Minority Engineering Effort 3 (ME3), under the leadership of Richard Mullens, head quarters New York City, and
3. The Committee on Minorities in Engineering, under the leadership of LaVoy Spenner, headquarters Washington, DC.

In addition to these organizations a number of Colleges of Engineering established student support programs and hired Minority Engineering Program Administrators (MEPA) to focus their attention on the recruitment, retention, and graduation of minority engineering students. There were close to 300 accredited engineering programs across the country, at that time. A select number of these were involved in this initial effort. National and regional conferences were held in various locations, hosted by one of the three organizations mentioned, and corporate sponsors. The newly hired minority engineering program administrator was an active participant in these meetings.

The order of the day...What strategies can we develop and implement to help meet the goal..."ten-fold increase in minority engineering student enrollment and graduation?" Conference participants focused their attention on issues inherent in this question. These were exciting times. There was no "cook-books" or "How-to" literature available to guide and direct the discussions.

Many hours and days were spent brain-storming to develop approaches to this huge challenge. Every idea had merit and warranted serious discussion (or debate) before it was accepted or rejected. These meetings were conducted with the understanding that participants were invited to sit at the table as "equal". Membership in a particular organization or group did not guarantee special status to that participant. This was an "inclusive" arrangement... a genuine effort to involve all organizations and groups. A more focused effort was needed, however, to pull these various factions together, not under a single umbrella, but ensure that they were all "on the same page".

In May 1973, more than 250 engineering educators, students, industrialists, government officials, and minority leaders attended a Symposium on Increasing Minority Participation in Engineering, convened by the Commission on Education and the National Academy of Engineering. The symposium participants called for a "national mobilization" to ensure that minorities be brought up to equitable participation in engineering within a decade. An independent Task Force, charged with providing an overview of the situation, and developing guidelines for individuals and groups working in this arena led to the publication of "MINORITIES IN ENGINEERING-A Blueprint for Action".

The effort was beginning to take shape. Now we had a road map, national, state, and local organizations, and a

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single objective to motivate all of us. A number of minority engineering program administrators, suggested, taking this initiative one step further. "Perhaps we need to call a meeting and invite all MEPAs'. We could even discuss the possibility of forming our own organization". The author of this quotation is unknown, but the word spread like wild fire. Most MEPA's thought that it was a good idea whose time had come.

FIRST MEETING

In October 1979 the first meeting of minority engineering program administrators, sponsored by the Committee on Minorities in Engineering, was held in Atlanta, Georgia. The meeting was very informal and everyone present voiced his/her opinion about the topics before the group. Everyone supported the notion that an organization of MEPAs' should be formed. It was suggested that a second meeting was needed to continue this discussion. Bob Finnel, Executive Director of MESA (Mathematics, Engineering, and Science Achievement) agreed to host the next meeting at the University of California, Berkeley. The National Society of Black Engineers (NSBE) national meeting was slated for March of 1980, in California, on Stanford University's campus, Palo Alto, California. Most of the participants in our first meeting usually attend the NSBE's meeting as well.

SECOND MEETING

The second meeting was held a few days before the NSBE National Conference in March of 1980, on the University of California, Berkeley's campus. There were thirty to forty MEPs in attendance. After a brief discussion, the group unanimously voted to form a national organization of Minority Engineering Program Administrators, and appointed a Steering Committee, by popular vote, that was charged with the following:

1. Suggest a proposed structure and operating procedure
2. Define the purpose and goals of the organization
3. Seek input from other Minority Engineering Program Administrators
4. Articulate the issues
5. Provide input to the National Task Force on restructuring the "National Engineering Effort"
6. Plan the next Program Administrator's Meeting

Steering Committee members:

- Marion Blalock-Purdue University
- Lee Browne-California Institute of Technology
- Vincent Contreras-San Jose State University
- Eugene Deloatch-Howard University
- Bill Gamble-Michigan State University, Chair
- Raymond Landis-California State University, Northridge
- Deborah Minor-Stevens Institute of Technology

- Wayne Steen-University of Oklahoma
 - George Baker-Xavier University Of Louisiana*
- * Replaced Eugene Deloatch when he rotated off the committee

STEERING COMMITTEE

The Steering Committee met several times during the rest of the calendar year. At its first meeting, in New York City, the committee set a goal for itself...to complete its assigned task and have recommendations ready for discussion and approval by the end of January 1981.

The Steering Committee divided the six assigned tasks among them. Each individual or team was responsible for providing information necessary to respond to each specific charge. A survey was used to collect input from MEPAs. Individual/team suggestions were cross-referenced with data received from the survey to ensure input from all constituents. This data provided the information needed to formulate the committee's final recommendations. The survey addressed the following:

- name of the organization
- purpose statement
- organizational goals
- organizational structure
- regions
- association with other professional organizations
- national meetings
- membership criteria
- dues and operating funds

The next MEPA meeting held January 27-30, 1981, in conjunction with the American Society of Engineering Education (ASEE) 1981 College Industry Education Conference in Lake Buena Vista, Florida.

BIRTH OF AN ASSOCIATION

The Steering Committee worked very well together to complete their assigned task in a timely manner. They took full advantage of the various means of communication available, at that time, to ensure input from MEPs, Deans of Engineering, Corporate Representative, and members of other non-profit organizations.

The Steering Committee presented the following recommendation to the general body for their consideration:

NAME OF ORGANIZATION - Association Of Minority Engineering Program Administrators (AMEPA). The name was later changed to National Association of Minority Engineering Program Administrators (NAMEPA)

MISSION STATEMENT - The National Association of Minority Engineering Program Administrators (NAMEPA) is a national network of educators, and representatives from industry, government, and non-profit organizations who share a common commitment to improving the recruitment and retention of African Americans, Hispanics, and Native Americans earning

NAMEPA History

degrees in engineering. As an authority in minority engineering education, AMEPA serves as an advocate for those students, promotes the professional development of members, and generally engages in a wide range of activities, which respond to the needs of its membership.

REGIONAL STRUCTURE: NAMEPA is divided into five geographical regions designated A, B, C, D, & E

- Region A: CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VI, DC.
- Region B: AL, AR, FL, GA, LA, MS NC, SC, TN, VA, WV
- Region C: IL, IN, IA, KY, MI, MN, MO, OH, WI
- Region D: AZ, CO, KS, NE, NM, ND, OK, PR, SD, TX
- Region E: AK, CA, HI, ID, MT, NV, OR, UT, WA, WY

NATIONAL OFFICERS: President, President-Elect, Secretary, and Treasure

REGIONAL OFFICERS: Chair, Chair-Elect, Secretary, Treasure, And Regional Representative.

NATIONAL BOARD OF DIRECTORS: President, President-Elect, Secretary, Treasure, Regional Chairs (5), Chairs-Elect (5), And Regional Representatives (5).

NATIONAL CONSTITUTION AND BY-LAWS:

Overall, there was unanimous approval of the Steering Committee's recommendation. One word in the Mission Statement...advocate...generated a lively, and somewhat heated debate. Fortunately, calmer head prevailed and there was agreement, by voice vote, to leave it in the Mission Statement. National officers were elected and sworn in at this meeting. Regional meeting were held at a later date and regional officers were elected. NAMEPA's organizational and leadership structure was in place. Now the association's members could look forward to the real work and fun ahead.

NAMEPA-1981 TO 2001

As the title suggests this is an abbreviated version of NAMEPA's history. Perhaps one day we'll get to hear "the rest of the story". Many of the original members are still active with the association. Some have retired and others moved on to different careers. They can provide the details that are missing in this version. One word of warning be prepared to listen for a while. Once you get a NAMEPA "old-timer" talking about the "good old days", they tend to go on and on.

Thirteen (13) individuals have provided leadership by serving as the association's president. They are:

William J. Gamble, Jr.	1981 and 1982
Marion Blalock	1983
Minnie McGee	1984
Paul Parker E.	1985
Nathaniel Thomas	1986
Winona Simms	1987
Cecil Curtwright	1988
Gloria Hill	1989

James Newton	1990-1992
Terri Jones Young	1992-1994
Stephen Jones	1994-1996
R. David Cantu	1996-1998
Gregory Singleton	1998-2002

The number of minority students receiving degrees in engineering at the bachelors and graduate level has improved tremendously since 1972. There are many players, who feel responsible for this turn-around. NAMEPA is among the top of the list. MEP's worked closely with the students during their matriculation and transition through their college stay. They also work well with Pre-College Programs (middle and high schools) and Corporate recruiter who later hire students to work for their company. The MEP/NAMEPA member's greatest reward is to meet a former student, who's now working as an engineer for a fortune 500 company or has started his/her own business.

Listed below are NAMEPA activities, projects, publications, seminars/workshops, conferences, and other special activity. These are highlights of national and regional work of the association over the past 20 years. The list is by no means exhaustive, but a representative sample of the outstanding accomplishments of NAMEPA.

- * NAMEPA, Inc. 1998 Annual Report
- NAMEPA, Inc. 1998 date book
- NAMEPA, Inc. 1998 Membership Directory
- National and Regional Newsletters
- National and Regional Conferences
- NAMEPA Training Institute
- NAMEPA -Vital Issues
- NAMEPA Symposium
- National Scholarship Program
- Endowing Members
- Corporate Members
- Institutional Members
- Industry Advisory Council
- Government Affairs Committee

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WEPAN'S HISTORY

Abbreviated

INTRODUCTION

WEPAN, a national non-profit 501(c)(3) educational organization, was founded in 1990 to be a catalyst for change that enhances the success of women in the engineering profession. Key strategies used to accomplish our mission include education, training, research, collaboration, leadership, diversity, advocacy, networking, sustainability, accountability, and volunteerism. WEPAN is led by five officers and an eight person board of directors. WEPAN has a membership of over 500 individuals representing nearly 200 engineering schools, Fortune 500 corporations and non-profit organizations. Over \$5 million has been raised from federal, foundation, and corporate sponsors in support of WEPAN initiatives.

WEPAN is supported by four Centers located at Purdue University (member services), University of Michigan (communications), Stevens Institute of Technology (administration), and the University of Washington (consulting services).

MAJOR PROJECTS AND EVENTS

Making the Connection, funded by the Lucent Technologies Foundation is a project designed to bring engineering into the classroom in grades 3-12. A presenter's guide and hands-on engineering-based activities will be available in the Fall of 2001.

WEPAN Regional Training Seminars, initiated in 1992, have assisted 175 colleges and universities in the development or expansion of programs focused on women in engineering and the supporting sciences. A new Professional Business Skills Curriculum will be piloted in the Fall of 2001 to assist students in successfully transitioning to a career. The project is funded by the Fund for the Improvement of Postsecondary Education.

WEPAN on the World Wide Web (W4), is a comprehensive website including profiles of women in engineering and science programs, funding and scholarship sources, bibliographies, organizational information, data and statistics, international resources and more. You can find W4 at www.wepan.org

The Global Alliance for Diversifying the Science and Engineering Workforce is a collaborative initiative with the American Association for the Advancement of Science, the Association of Women in Science and WEPAN. It is an organization of more than 30 countries and organizations in partnership. A website is under development at www.globalalliancesmet.org. Recently the Global Alliance received a grant from the Engineering Information Foundation to conduct a pilot study to promote the participation of women students and professionals in science and engineering in Mali, Egypt, and Nigeria.

WEPAN continues to co-sponsor or partner important events at the national level. These include the following:

- National Engineers Week Introduce a Girl to Engineering Day, February 18-24, 2001.
- Careers of Women in Sciences: Issues of Power & Control, May 12-13, University of California at Berkeley.
- Commission for the Advancement of Women and Minorities in Sciences, Engineering and Technology (CAWMSET). WEPAN is an official partner of CAWMSET and will work with its members to implement selected recommendations identified in the Commission's report.
- International Conference of Women Engineers and Scientists (ICWES) XII: Women in a Knowledge-Based Society, July 27-31, 2002, Ottawa, Ontario, Canada.

PUBLICATIONS

A Curriculum for Training Mentors and Mentees includes handbooks for students, faculty, professional scientists and engineers, an administrator's training guide, bibliography, and video.

Increasing Access for Women in Engineering: Administrator's Guide and Supporting Documents focuses on: managing & evaluating programs, obtaining funding, assessing climate & student needs, developing pre-college, retention & mentoring programs, and facilitating community college transfers.

What Do Engineers Do? is a book of demonstrations, laboratories and research projects designed to introduce students in grades 7-12 to engineering.

WEPAN Pilot Climate Survey; Exploring the Environment for Undergraduate Engineering Students is based on a survey of over 8,000 male and female engineering students at 29 institutions in the U.S.

Factors in the Underrepresentation of Women in Science and Engineering is a comprehensive literature review.

WEPANEWS, the organization's newsletter, highlights activities, issues, research, and news from the field. WEPANEWS can be found on-line at www.wepan.org.

WEPAN Member Services
1284 CIVL Building, Room G167
West Lafayette, IN 47907-1284

765-494-5387, Fax: 765-494-9152
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