

Engaging the Engineering Community

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Abstract

The Civil and Environmental Engineering Visiting Council (CEEVC) is a volunteer advisory body to the Civil and Environmental Engineering (CEE) Department at Old Dominion University, Norfolk Virginia. It was established in 1987 to meet the need for collaboration between the University and the local engineering community. The council is presently comprised of 25 senior professional engineers from a cross-section of local industry, government, business, and academia. Many are ODU Civil and Environmental Engineering alumni, and all are local engineering leaders - valued 'friends of the university'. This presentation documents how CEEVC brings ODU and the engineering community together, and provides guidelines, procedures, and documents for engineering departments to establish similar organizations to engage the engineering community in higher education.

Keywords

Visiting Council
Bylaws
Scholarship
ABET
Committee

Introduction

The role of the CEEVC is to provide advice and support to the CEE Department from the perspective of practicing professionals. Broadly stated, CEEVC activities include consultation on planning of departmental activities, assisting the Department in maintaining effective liaison with the University and the external community, raising discretionary or special purpose funds on behalf of the Department, providing financial support and assisting in educational and engineering student activities. The Visiting Council considers matters placed before it by the Council's Executive Committee and by the CEE Department Chair. Typical examples include:

- Serving as a sounding board for new ideas, activities, or programs
- Reviewing and assessing academic programs, both educational and research
- Identifying new technologies to be promoted and old ones to be eliminated
- Formulating, structuring, priority setting and fund raising for future programs
- Providing guidance for establishing of alumni and friends relations programs
- Promoting professional relations between the Department and the business and technical communities
- Assisting the Department in communication efforts within and external to the university community

- Providing voluntary lecturers for senior design, FE review, engineering ethics, and similar courses
- Providing financial and technical support for student activities and education
- Assist in ABET accreditation activities such as alumni surveys and interviews

A review of other engineering departments at ODU indicates that they all, with the exception of the newly established Biomedical Engineering Department, have an Industrial Advisory Board or Council. Their primary roles are to assist their departments with ABET Accreditation, to provide advice regarding curriculum, and to collaborate with industry for research opportunities.

This paper documents how CEEVC brings ODU and the engineering community together, and provides guidelines, procedures, and documents for engineering departments to establish similar organizations to engage the engineering community in higher education. The CEEVC is considered a model in establishing visiting councils in other institutions, particularly departments with limited access to resources.

History

CEVC was started by Dr. Leon Wang, CE Department Chair, in 1987, to raise money for a new engineering laboratory building, while at the same time creating a support organization for the CE Department. Twenty-five leaders from the engineering community volunteered for this effort. The initial meetings set in place the committees to raise money, establish bylaws, create concept designs for a new engineering lab building, and assist with other departmental activities.

During the first year, CEVC initiated fund raising activities, spending a considerable amount of time creating a list of civil engineers and other potential donors. In addition, the CEVC worked on designing a new ODU engineering laboratory building, drafting by-laws, and defining the purposes and goals of the organization. This effort was led by the ODU CE Department Chair with more and more responsibility for running the CEVC organization transferring to the Council Chair. However, within this first year, ODU notified the CE Department that they could not organize and construct a new laboratory building outside the normal Bureau of Capital Outlay Management run by the Virginia Department of General Services. ODU also stated they could not compete with the fundraising efforts by the ODU Development Office. Nevertheless, the impetus of the organization was well established, the purposes evolved into what it is today, and the organization flourished.

When Environmental Engineering was added to the CE Department in 1995, the CEVC changed its name to the Civil and Environmental Engineering Visiting Council (CEEVC).

The latest change occurred in 2016 when the Council incorporated as a 501.C non-profit organization, where the official name was changed to the Civil and Environmental Engineering Council, Inc. Because CEEVC raised funds to benefit ODU, they had the choice to either come under the control of ODU financially or to remain independent. By remaining independent they can create discretionary spending initiatives and can vary their support of various CEE activities and needs without the university oversight. The CEEVC, though independent of the University, exists to work in concert with the CEE Departments to achieve goals and objectives. Prior to

becoming a 501.C organization, the CEVC organized itself under the umbrella of the local chapter of ASCE. Most of the Council members were also members of ASCE, many in leadership roles, and were able to obtain approval to do so. Having heard of similar situations that put finances in jeopardy for the sub-organizations, CEEVC elected to incorporate as a separate and independent entity. Because the organization is not an ODU entity, they cannot use ODU in their name or logo. However, because they organize events for the benefit of and in conjunction with ODU, they put both entities' logos on flyers and other documents, one in each corner.

Board of Directors

The **Board of Directors** is responsible for overall policy and direction of the CEEVC, and delegates responsibility of day to day operations to the committees. The Board receives no compensation other than reasonable expenses. All directors serve for a two-year term. The board is composed of no fewer than three council members. The board consists of the Council Chair, the Chair-Elect and Treasurer, the Chairs of the other standing committees (Education, Research, and Fund Raising), the Past Chair, the Department Chair, and the Council Secretary. The full-time faculty and Dean of the College are ex officio members. The Board acts to transact such business as may be necessary between the regular meetings of the Visiting Council and prepare the agenda for the regular meetings. The Board meets at least once before the general meeting or at the call of the Council Chair for special purposes on dates convenient for the Board members.

The Council Chair directs the affairs of the Council, presides at meetings of the Council, acts as representative of the Visiting Council at any functions where the Council needs to be represented, appoints committees of the Council, and chairs the Board of Directors of the Council. The Chair Elect/Treasurer serves as chair in the absence of the elected Council Chair, succeeds the Council Chair to fill out an unexpired term in the event the Council Chair resigns or is removed from office for any reason, chairs the Bylaws Committee, and manages the financial affairs of the Visiting Council. The Past Chair provides liaison between the Council and other support groups of the Department of Civil and Environmental Engineering, provides guidance and support to the Council Chair, and chairs the Standing Nomination/Membership Committee.

Committees

The **Building Committee** was created in the initial bylaws. After direction from the University to halt building planning, with associated fund raising, the building committee was dissolved. On a side note – the Engineering Systems Building was constructed in 2014 which moved many offices and labs out of Kaufman Hall (The College of Engineering main classroom and laboratory building). While the Engineering Systems Building did not directly benefit the CEE Department, it did free up space to expand laboratory and classroom space in Kaufman Hall.

After the by-laws were created, the **By-Laws Committee** was put on standby to be reconvened whenever by-law changes were required. The by-laws have been changed three times since the original by-laws were created. A two-thirds majority is required to approve by-law changes.

The **Membership Committee** is convened whenever there is a need to add new members. New members are nominated by existing members and faculty. The CEEVC Bylaws provides for the CEE Department Chair, a faculty member as secretary, 25 members, and a board member from the CEE Alumni Association. The committee is comprised of three or four Council members including the Chair-Elect, and the Past Chair who serves as the Chair of the Committee. The Department Chair serves as ex officio on the committee. Council members must have knowledge of and interest in civil and environmental engineering education in general and an interest and concern for the development, advancement, and recognition of the Old Dominion University Department of Civil and Environmental Engineering. Members must be available to attend meetings and devote the time necessary to effectively serve the Council and the University. Members of the Council are chosen from Civil and Environmental Engineering leaders in industry, government, and private practice. Currently there are 2 Members from industry, 7 from government agencies, 16 from private consulting firms and one ODU Civil and Environmental Engineering Alumni Chapter (CEEAC) representative. The CEEVC assists the CEEAC with funding activities aimed at increasing membership in CEEAC. The majority of CEEVC members have a bachelor's or master's degree from ODU.

The **Research Committee** actively promotes and facilitates relationships within the industry for the advancement of research with the CEE Department. The committee works with the Department Chair in identifying disciplinary focus. The emphasis of the committee is to use existing connections with the government and industry to make the Department aware of opportunities for research and to support the University's effort in this regard. They are not tasked with writing proposals or helping with the awarding of research dollars to the university. Often opportunities are known well in advance of advertising for proposals such that advanced inquiries and contacts can lead to pre-selling ODU services. The committee organizes meetings between professors and agencies such as the Virginia Department of Transportation, to collaborate on abilities versus needs.

The **Education Committee** reviews the existing educational programs and activities of the Department, recommends educational areas for discussion by the Visiting Council, and suggests fund raising efforts needed for implementation. The Department Chair tasks the Education Committee to assist with the ABET review process. These tasks include reviewing Civil and Environmental Engineering program objectives, creating questionnaires, conducting interviews with Civil and Environmental Engineering alumni, and providing advice on engineering curriculum and outcomes. The Education Committee provides support for student education and activities including teaching as an Adjunct or volunteer, proposing senior design projects around "real" projects, assisting students with engineering activities such as judging concrete canoe races and bridge competitions.

The **Fundraising Committee** coordinates and reviews the fundraising efforts suggested by the Education and Research Committees, and plans and conducts fundraising activities for education, research, operations and capital improvement of the CEE Department.

The Fundraising Committee has conducted technical seminars in the past but found that they were competing with other engineering and government agencies and consequently were not successful. They looked for unique opportunities and found that there was a real need for

information on upcoming projects for the private consulting architectural and engineering firms. The Committee is currently conducting two seminars per year entitled, “What Does the Future Hold for Design Professionals and the Contracting Community”. The fall seminar covers Federal, State, and Regional contracts with agencies such as Naval Facilities Engineering Command, U.S. Army Corps of Engineers, Virginia Department of Transportation, and Hampton Roads Sanitation District. The committee works with the American Society of Military Engineers (SAME) to organize that seminar. The second seminar covers all the local municipal agencies in Hampton Roads such as Virginia Beach Public Schools, Norfolk Department of Utilities, and Newport News Department of Public Works.

Each summer the Fundraising Committee conducts a best ball golf tournament to raise additional funds to support the CEE Department. They solicit donations from sponsors to purchase hole signs, sponsor drink carts, sponsor meals, provide prizes, and other financial support. The sponsors are given recognition throughout the tournament and everyone has a great time.

Total funds raised average \$30,000 per year.

Education and Fundraising Committees are generally the most active committees, and meet as needed between regular council meetings to plan, coordinate and execute respective projects.

Meeting Agenda

CEEVC conducts regular meetings in September, January and June. Meetings are held on the campus of the University, unless the Council elects to meet elsewhere. Special Council meetings may be called by the Council Chair with adequate notice. A quorum consists of fifty-one percent of the CEEVC members present.

A typical agenda starts out with registration, opening remarks by the Council Chair, presentation by Secretary of the previous meeting’s minutes with comments, corrections, and a vote to approve. The Department Chair then presents a report on the department which could include an ABET update, enrollment statistics, facilities strategic planning, department financial status and needs, the newsletter, and any other department reports of interest to the council. The Chair can suggest assistance needed from the Council. A professor is called on to present an on-going research project.

The committees break for separate meetings to conduct committee business. Following the breakout sessions, the entire council reconvenes with each Committee Chair making a presentation of their efforts and accomplishments since the last meeting. Often motions are made which require discussions and a vote from the Council for approval. The Treasurer presents the Treasurer’s Report to the committee which is openly discussed and approved. Once a year in the June meeting, the Treasurer presents an annual budget for discussion and approval.

Lunch follows the meeting during which other presentations are made from Faculty. New faculty members are introduced or additional research presentations are made. The ASCE Student Chapter or other student engineering organizations make presentations during this time

as well. These presentations can be a report of student activities or a request for technical or financial support from CEEVC.

Accomplishments

The following is a partial list of accomplishments by the ODU Civil and Environmental Engineering Visiting Council:

1. Fund raising activities started in 1987. In 1988 the first scholarship was awarded for \$2,000 at \$1,000 per semester. Excess funds were used to support student and Department activities, along with reserving funds for starting an endowed scholarship.
2. Established in 1994 the William M. Boone Memorial Scholarship Endowment with a contribution of \$25,000 to the Old Dominion University Educational Foundation. Additional contributions have been made to the endowment such that, along with growth and annual awards, the market value is \$132,830 as of June 30, 2016.
3. Awarded a total of \$7,500 in scholarships to 4 undergraduate recipients during school year 2015-2016 and \$8,000 for the Fall 2016 semester.
4. Established in 2003 the CEEVC Endowed Graduate Assistantship Endowment with a contribution of \$25,000. Additional contributions have been made to the endowment such that, along with growth and annual awards, the market value is \$134,472 as of June 30, 2016.
5. Awarded an \$18,000 assistantship to one graduate recipient during school year 2016-2017.
6. Reimbursed \$2,175 to students who passed the FE Exam and filed for reimbursement.
7. Funded \$6,463.29 for travel expenses for CEE Department Guest Lecture Series.
8. Funded \$4,000 toward the 2017 ASCE Student Chapters Virginia Engineer's Conference hosted by the ODU ASCE Student Chapter.
9. Raised \$22,046 profit from the Spring and Fall 2016 Seminars.
10. Raised \$7,411 from the 2016 Golf Tournament.
11. In 2016 reorganized as a 501.C non-profit corporation.
12. Provided support for the Solar Decathlon joint venture with Hampton University (Architectural). Will provide support to reassemble the house on City of Norfolk property for display and educational benefit.
13. Budgeted expenses for 2016 thru 2017 are approximately 54% for Department support (including student activities), 32% for scholarships (endowed and cash contributions), and 13% for CEEVC expenses.
14. Assisted CCE Department to prepare for ABET review with various evaluations and recommendations. The Department presented those items with their report. ABET reviewed their report, inspected the facility, and had only 1 item of concern and 1 item of weakness regarding the facility in their December 2015 inspection which were quickly corrected by the Department. The result was complete passing such that they are free from ABET review for the maximum period. CEEVC has instrumental in the ABET process since its inception, with very positive results.
15. In 1991 the ASCE Norfolk Branch working with CEEVC created the ASCE Hardy Cross Hall of Fame located within departmental office space. The Hall of Fame bears the name of Dr. Hardy Cross, an internationally renowned civil engineer and scholar born in

Nansemond County and a graduate of Norfolk Academy in Norfolk, Virginia. CEEVC maintains the Hall and assists ASCE in selecting and inducting eminent civil engineers who have made lasting contributions to the profession and community through their sustained professional and civic leadership. Presently there are 17 inductees whose contributions serve as an example to students on how to build a career. The Hall also includes a display donated by the Smithfield Historical Society highlighting the life and contributions of Dr. Cross.

16. Dennis J. Fallon, Ph.D., P.E., retired past Dean of the School of Engineering at The Citadel, The Military College of South Carolina, was a founding member of ODU CEVC for 3 years. Using our model and his experience at the ODU CEVC, Dr. Fallon formed a Civil and Environmental Engineering Visiting Council for the CEE Department at the Citadel. When promoted to Dean, he created an additional School of Engineering Visiting Council for the School of Engineering.

The Civil and Environmental Engineering Visiting Council has been a very successful, well-run organization that provides considerable technical and financial support to the Old Dominion University Department of Civil and Environmental Engineering. The details of the organization may be used to help establish similar organizations at other engineering institutions. The needs and resources are different at each institution which can be accommodated with good planning and creative adaption of the principles and procedures presented in this report. For additional assistance in this regard, please contact the author and visit our web site.

<https://ceevc.wordpress.com/>

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