Location: Computer Science Conference Room (Rm 3104.7, 3rd floor)
Maccabees Building, Suite 3010
5057 Woodward Avenue
Detroit, MI 48202

In Attendance:
Leela Arava, Emmanuel Ayorinde, Victor Berdichevsky, Walter Bryzik, Nabil Chalhoub,
Guru Dinda, Naeim Henein, Raouf Ibrahim, Marcis Jansons, Jerry Ku, Ming-Chia Lai,
Golam Newaz, Mohammad Ali E. Ozbeki, Trilochen Singh, Chin-An Tan, Sean Wu, Xin
Wu, Bashar Addul-Nour

Farshad Fotouhi & Darin Ellis (During Lunch)

Dr. Chaulhoub calls meeting to order at 8:30 AM with the following agenda items:

- Current State of the Department
- Research focus areas of ME Department
- Hiring priority for Tenure-track Faculty position
- Assessment & Program Evaluation – Associate Dean Darin Ellis
- Criteria for GTA & Rumble Fellowships Allocation
- ABET Preparation
- ME Alumni Committee

Opening Comments – Chair

- Dr. Mohammad Ali E. Ozbeki has been hired as a lecturer for 1 year with possible
  renewal. He will be teaching 4 courses per semester distributed between the main
  campus and the ATEC Macomb Center.
- Faculty members will be provided with enrollment data pertaining to their
  respective courses. This data will be updated on a weekly basis starting November
  15, 2014. Actual course offering will be mainly based on enrollment. Final decision
  on the course offering will be made around December 15 for the winter 2015
  semester.
- To reduce the teaching burden on ME faculty, sabbatical leaves will be limited to at
  most two faculty members per semester.
- Volunteering students and visiting scholars from other institutions cannot work in
  research labs or use university facilities without having the proper paperwork
  and identification cards from WSU and OISS Office. To ensure compliance,
  faculty members should consult with the College Human Resources (HR) office.
- More than 100 students are expected to join the College of Engineering (COE) in
  winter 2015. Their tuitions and costs of living are fully paid by their own
  government.
- Often visiting graduate students are classified as undergraduate students at WSU.
  Dr. Ku shared his experience with exchange students from Italy.
- Outreach ME four-year program at the ATEC facility in Macomb:
The ME Dept. will offer a 4-year program at the ATEC facility, which is located across the street from the Macomb Community College. This program is expected to significantly increase enrollment in the ME undergraduate program.

The budget for setting up the ATEC teaching facility has already been approved by the Central Administration.

ME courses may be offered by ME FT faculty during the spring/summer term on an overload basis.

Seminar Program for the Fall semester will run at the same rate of funding as in previous years.

Computers for Teaching Purpose: 25% of the ME faculty will have their teaching laptops replaced with new ones on an annual basis. The goal is to replace all teaching laptops in the ME Dept. every four years. Faculty requests should be made to the Department Chair. Highest priority will be given to old and obsolete laptops (laptops older than 4 years qualify for replacement). All teaching claims should be justified by listing the courses and the software that will be used for.

Course fee for all ME courses should be reviewed by faculty and the fees should be reflective of actual costs of course materials/software. The review process should begin immediately in order to submit our requests in a timely manner.

The Dept. Chair will try to support travel for meeting Program directors at governmental agencies. Preference will be given to new faculty members.

Research Focus Areas of ME Department
ME faculty have identified three research thrust areas with the objective of establishing research centers and enhancing funding solicitation efforts.

Research Thrust Area 1: Advanced Materials and Manufacturing
Thrust Area Leader: Dr. Xin Wu
Thrust area members are Dr. Leela Arava, Dr. Guru Dinda, Dr. Golam Newaz, Dr. Victor Berdichevsky, and Dr. Emmanuel Ayorinde (5 FT faculty members)

Identified focused research topics are:
- Battery
- Direct Additive Manufacturing
- Composites
- Deformation processing
- Fundamental thermodynamics and micromechanics
- NDE

Research Thrust Area 2: Advanced Propulsion & Energy Systems
Thrust Area Leader: Dr. Ming-Chia Lai
Thrust area members are Dr. Walter Bryzik, Dr. Naeim Henein, Dr. Marcis Jansons, Dr. Nabil Chalhoub, Dr. Jerry Ku, Dr. Trilochen Singh and Dr. Bashar Addul-Nour.

Identified focused research topics are:
- Fuels and combustion Systems
- Engine Dynamics and Friction
- Engine performance and system optimization
- Vehicle efficiency
- Advanced Energy Storage
- Propulsion System Modeling and Control
- Thermal management

Research Thrust Area 3: Noise and Vibration Control

Thrust Area Leader: Dr. Raouf Ibrahim

Thrust area members are Dr. Sean Wu, Dr. Chin-An Tan, Dr. Ali Ozbeki, Dr. Victor Berdichevsky, Dr. Emmanuel Ayorinde and Dr. Nabil Chalhoub.

Schedule of Faculty Meetings:
- Fall Semester, every 3rd Friday of each month from 9:00 AM to 11:00 AM
- Winter Semester, every 2nd Friday of each month from 11:00 AM to 1:00 PM

Hiring Priority for Tenure-Track Faculty position

- The Dean has allocated one new tenure-track faculty position for the ME Department in the 2014-2015 academic year. Dr. Chalhoub reviewed the faculty strength in the three thrust research areas of the Dept. and recommended that the new faculty position be used to strengthen the Advanced Propulsion and Energy group. After some discussion, the ME faculty unanimously approved the Dr. Chalhoub’s recommendation.

Presentation of Dr. Farshad Fotouhi, Dean of COE

- Dean Fotouhi discussed the State of the College.
- Fall 2014 Enrollment for the College of Engineering (COE) increased significantly both at the graduate and undergraduate level. The majority of other Colleges at WSU have experienced a decrease in their enrollment in comparison to 2013 Fall Semester.
- The University has launched a fundraising campaign with a target of raising $750 million over the next four years. The COE is an active participant in this campaign. One of the COE Alumni has committed to set up an Endowed Chair position in the Entrepreneurship Institution with a gift exceeding 5 million dollars.
- COE will soon have a new Associate Dean for the Entrepreneurship Program in order to enhance the visibility of the COE start-up companies.
- Dean Fotouhi urged the faculty to maintain office hours in order to improve student-faculty interaction and provide students with a pleasant experience at WSU.
Presentation of Dr. Darin Ellis, Associate Dean for Academic Affairs

- The new University-wide accreditation requirements by the Higher Learning Commission (HLC) include assessment of both graduate and undergraduate programs.
- ME Department needs to develop program educational outcomes/objectives for both MSME and Ph.D. Programs.
- An assessment process needs to be in place in order to determine the extent to which various outcomes are being met.
- Show how assessment data is being compiled and used in the continuous improvement process of both MSME and Ph.D. programs.
- Need for tracking the progress of graduate students in the pipeline.

Criteria for GTA & Rumble Fellowships Allocation

Currently, ME Dept has 8 Graduate Teaching Assistant (GTA) positions and 3 Rumble fellowships. The Chair requested and faculty unanimously approved, after some discussion, that 5 GTA positions be attached to courses for which they are assigned and not to the faculty members teaching these courses. The remaining GTAs will be locked to lab intensive courses with the GTAs being trained and assigned by faculty members who are teaching the courses. In addition, faculty members were asked to show flexibility by accepting graduate students, not belonging to their respective research groups, to be GTAs for courses and labs that they are teaching. GTA allocation will be done by the Chair with the recommendation from faculty committee.

ABET Preparation

Dr. Jerry Ku handled the discussion on this subject. As a part of the ABET process, the ME Department has to review:

- the educational objectives of the BSME program
- course learning objectives
- assessment processes and showing the extent to which the outcomes are being met
- use of assessment to implement continuous improvement in following years

Dr. Ku suggested that the following items should be reviewed for possible continuous improvement:

- Integration of computer skills throughout the curriculum
- The integration of present lab experiences with theory courses. How does the new system compare with the older one where separate stand-alone lab courses were offered?

Since no significant work was done last year, this review must be completed during the current academic year (AY2014-15). The faculty will be contacted by the Chair regarding ABET report writing, collecting data, and assessment. In addition, several faculty meetings will be held during this academic year for the sole purpose of ABET review process.
New topics by faculty

Dr. Xin Wu made a motion to approve the following:

- Add Material and Manufacturing as one of the area for the Ph.D. Preliminary Qualifying Written Examination (PQE) starting January 2015. Currently we have the following seven areas for PQE:
  - Solid Mechanics
  - Vibrations
  - Dynamics
  - Thermodynamics
  - Heat Transfer
  - Fluid Mechanics
  - Controls

Materials and Manufacturing would be the eighth area. Students are required to pass three of 8 areas.

The suggested courses, textbooks, sample exams were included in the report that was circulated at the retreat and prepared by Dr. Golam Newaz, Dr. Guru Dinda, Dr. Leela Arava, and Dr. Victor Berdichevsky.

The group entitled “Manufacturing/Design” in the current ME Handbook would be renamed as “Materials/Manufacturing”. After some discussion, the motion was unanimously approved.

Meeting adjourned at 3:40 p.m.

Minutes submitted by Dr. Leela Arava