

**CIVIL ENGINEERING ALUMNI, INDUSTRY AND PARENT MEET 2017-18**  
**(CEAIPM 2017-18)**

**Civil Engineering Department**  
**College of Engineering Pune**

**Venue: Main Auditorium, COEP**

**Day and Date: Saturday, 28<sup>th</sup> October 2017**

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Civil Engineering Alumni, Industry and Parent Meet 2017-18 (CEAIPM 2017-18) was held on 28<sup>th</sup> October 2017, in the main auditorium of COEP. Following points were discussed during the interaction session with the alumni and parents, in presence of industry representatives and faculty members of the department.

- The marketing skills of student's, w.r.t. the placement activity should be enhanced and training should be provided to them for improved performance during interview, group discussions etc.
- The entrepreneurship should be promoted within the students and proper guidance should be given in this direction. The students should be given incubation facility in the department, apart from the facilities provided under the BHAU institute of entrepreneurship.
- Other courses related to the civil engineering (viz. Staircase & Shuttering design, Pre-engineered buildings, advanced building construction, etc.) should also be included in the curriculum, as it is the demand of the present construction industry.
- The students should be informed and promoted to attend various exhibitions organised by the industries to know the latest developments.
- The institute and the department should promote the quality and number of sponsored research projects and involve more number of UG and PG students in them.
- The parents should be able to get the information about the progress (semi-annually or annually) from the department and the parent-department interaction should be strengthened.
- The students should be guided and encouraged more for aiming at the Engineering Services examinations, instead of examinations for administrative services.

### **Industry Advisory Board Meeting:**

After the CEAIPM 2017-18 meet, a meeting of the faculty members, members of the Industry Advisory Board (IAB) and industry representatives was held in the meeting room of Civil Engineering Department at 2 pm. The minutes of the meeting are summarised as below:

- The meeting started under the Chairmanship of Mr. Shashikant Limaye, with the confirmation of the minutes of the meeting held on 20<sup>th</sup> August 2016. Actions taken on the suggestions given in the last meeting were discussed. He suggested that the IAB meetings should be scheduled *once in every six months*, instead of once in a year.
- He mentioned that internship should be a mandatory part of the curriculum and there should be one faculty acting as mentor from the college, to coordinate with the person from industry.
- The industry and college should provide resources to the students for working on different projects. Industry-department interactions should be enhanced. Mr. Limaye suggested that case studies should be included in different subjects of the curriculum. Field problems, such as vibration problems in buildings due to machine drilling in construction of foundations for Metro, should be discussed. It is observed that the current trend of UG students is to opt for Construction management for further studies.
- It was decided to make the most updated syllabus of all years (UG and PG), available on the web site.

### **Expectations of Civil Engineering Department from Industry:**

- Teaching contents to students beyond syllabus and training by industry experts
- Offering interdisciplinary courses to enhance theoretical knowledge. Industry- offered electives : teaching full / partial syllabus of any subject
- Field visits and Expert lectures
- Internship opportunity to students : Opportunity to work on funded collaborative research projects
- Guidance to students to become entrepreneurs
- Industry training to faculty members on specialized software and working on latest equipment.

### **Expectations of Industry from Civil Engineering Department:**

- The department should provide a list of entrepreneurs produced every year. Track should be maintained of this data.
- Efforts should be made to increase the 'Saleable' value of students
- Subjects like : shuttering design (temporary works – wherein more accidents occur) should be included in the syllabus
- Students must be compelled to visit the exhibitions (like CONSTRO) related to construction industries and interact with industry people. There should be a stall of projects done by Civil engineering students of COEP in the construction exhibitions.
- Students should be made aware of the opportunities in different disciplines of Civil engineering
- Extra efforts should be taken to develop marketing skills of students
- Students should be exposed to different software and they should have mastery and expertise, before joining industries
- Students should be asked to draw fabrication drawings, along with construction and design details.
- Preparing history sheet of each students, showing his / her progress in each semester. Faculty should develop personal touch with students, right from the entry level, and keep track with their parents. Frequent meetings with students and parents should be arranged.
- Students should be exposed to success stories of Civil Engineers, our alumni and other personalities
- Invite our alumni, currently working in industries for sharing their experiences while working in industries, difficulties faced by them in the initial stages, preparedness of students to enter into industries, the skills they must possess.
- Revision in syllabus of Quantity surveying and estimation required. Current practices of bidding and billing must be included in the syllabus.

### **Mr. Shashikant Limaye:**

- Guidance on competitive examinations: students should opt for Civil Services (IES) and not for IPS. Faculty mentor should conduct aptitude test of students to give them direction about future job opportunities.
- Metro systems, high speed railways are the important subjects, which the students should be made aware of.

- Field related problems should be given to the PG students for dissertation work. As a part of internship, they should work on projects related to industry. For example, solution can be suggested for noise transmission to adjacent buildings, due to metro foundation work
- Safety engineering, training about erection of temporary structures is most important.
- Students should put in lot of hard work for first 5-8 years. Academics must be associated with each event. Priority is academics, not events.
- There should not be mismatch of industry needs with student graduates.
- Students should know billing systems for large projects.
- Knowledge about geotechnical engineering – Underground design, tunnelling, excavation techniques must be taught to students

**Mr. Prashant Zanwar (Director, Innovative Vastunirman Pvt Ltd.):**

- Set of lectures in all disciplines should be arranged to make the students aware of the opportunities available. Students should be trained to become HR and the responsibilities, expectations from this post, marketing skills required.
- A list of 100 industries should be prepared, who can help in all activities of the department and who can be contacted for making internship opportunities available to students.
- He suggested that industry experts from different fields, such as water proofing, painting, glass fiber reinforced concrete, should be invited for guest lectures.
- He suggested preparing a list of various subject topics for guest lectures, to create awareness among students in different areas of Civil Engineering. The speakers should discuss field problems.
- Include courses on public policies, smart cities in the curriculum of construction management of UG.
- He said that concrete as construction material is likely to be outdated in next 10 years. Students should know alternative solutions for it.
- Different international journals should be made available in the departmental library. Journals and magazines related to industry should be subscribed.
- He also showed willingness to provide any kind of help to students, in the field of building components.
- The IAB members suggested some topics for extra training / guest lectures
  - Storm water management

- Hiltey grip expansion bolts : for anchoring and repairing work and other products of Hiltey
- Aerated Concrete blocks
- Bamboo technology (Mr. Himesh Tulpule)
- Water proofing, Painting experts
- Geofoam: a material which has very high compressive strength and less deflection.
- Ballastless railway tracks
- Zamil steel products
- Sewage treatment plants
- Surveying : current practices – Drones, Desktop plotters, GPS, satellite, photogrammetry
- Design of formwork (shuttering) : call experts from different formwork manufacturing companies and let them talk about their products
- Firewall : design requirements
- Acoustic walls / sound barriers : design requirements
- Sales and marketing: We require ‘Sale’s engineers’, not ‘salesman’.
- Use of cold formed steel in decks of bridges
- Pre-engineered buildings : design aspects and construction components
- Different forms of staircases
- Cold form steel, composite construction

**Prof. S. S. Bhosale:**

- He appealed to the industry persons to support the department in convincing the senate that, ‘*A different template of the curriculum is required for Civil Engineering*’. It should not be the same as that for other departments. All IAB members strongly supported this suggestion and agreed to attend meeting with the Director / Dean Academics, for this purpose.
- Summer internship should be offered to all students after S.Y. and T.Y.
- Faculty members should update their profile on the web site.
- He discussed the ‘*New Course Curriculum Structure*’ for all eight semesters of UG courses. IAB members discussed that Mathematics should be taught by engineering faculty. Engineering Mechanics should be taught only to Civil, Mechanical and Production engineering students. For other branches, it may be included as elective.

Faculty should be made free from teaching this subject to other branches. Civil faculty resources should be used for the department, by introducing more number of elective subjects at departmental level.

- 'Applied Biology' should be kept as an elective subject or it can be changed to 'Biomechanics'/'Biomedical Engineering'. Case studies related to Civil Engineering must be included in this subject.
- F. Y. syllabus for Civil Engineering students should be different than that of other branches. Applied Chemistry, thermodynamics should be removed from the syllabus for Civil Engineering.
- 'Building planning, drawing, design and construction' subject should be taught in details, in two semesters, as a core subject. Subjects in different semesters should be inter-connected to each other. 'Plumbing' should be a core course, not an elective.
- If possible, give liberty to students to drop the course, in which he/she has no interest-implementation of choice based credit system.
- Thought was also given on suggesting specialization in the degree, such as
  - B. E. (Civil – Structural Engineering)
  - B. E. (Civil – Building technology)
  - B. E. (Civil – Geotechnical Engineering)
  - B. E. (Civil – Environmental and water resource Engineering)
  - B. E. (Civil – Fluid Mechanics and water resource Engineering)
- Up to semester V, all basic subjects of Civil Engineering should be taught and VI semester onward, choice should be given to student to study subjects of specialization of his / her own interest.
- Mini-projects should be industry-oriented.
- Introduce more number of core subjects in the curriculum, such as 'Fire Engineering', by removing subjects not useful to Civil Engineering.

**Prof. S. D. Kulkarni** suggested that Internship should be mandatory and be a part of the curriculum, as it is compulsory for medical students.

**Dr. Avinash Joshi:**

- Use of software like ANSYS, ABAQUS etc. should not be made mandatory to PG students, as knowing this software is not the need of the industry. They should work

on the field problems, with the involvement of Industries. Practical problems will also help them for employment.

**Prof. R. R. Joshi:**

- It is necessary to make the students work on software, as it develops research component, required for lifelong learning. The intention is to make them learn the problem, of their own and analyse the research based problems, independently.

**Ms. Pallavi Gavali (Alumnus, 1996):**

- CDAC : funds available to UG and PG students for doing analytical work, numerical assignments
- CDAC-COEP Collaboration for research, training to students
- CESA should be alert and proactive, in collaboration with organisations such as CDAC, ISSER, BCUD and Alumni of COEP, holding currently higher level posts

**Rohit Patil** asked whether incubation can be done at the departmental level.

Apart from the faculty members of the department, following members attended the meeting:

Sr. No.	Name of the person	Role
1	Shri Shashikant Limaye Chairman, Industrial Advisory Board, Civil Engineering Department	Technical Advisor Pune Metro Project Maharashtra Metro Railway Corporation Pune <a href="mailto:sdlimaye2000@yahoo.com">sdlimaye2000@yahoo.com</a>
2	Shri. Suresh Pakhare Member, IAB	Dy Chief Engineer, Construction, Pune. Central Railway <a href="mailto:suresh.pakhare@gmail.com">suresh.pakhare@gmail.com</a>
3	Dr. Avinash Joshi Member, IAB	STUP Consultants Pvt. Ltd. <a href="mailto:joshavi@gmail.com">joshavi@gmail.com</a>
4	Ms. Pallavi Gavali Industry Representative	CDAC, Pune <a href="mailto:pallavig@cdac.in">pallavig@cdac.in</a>
5	Mr. Prashant Zawar Industry Representative	Director, Innovative Vastunirman Pvt Ltd. <a href="mailto:prashant.zawar@innovastu.com">prashant.zawar@innovastu.com</a>