

MINUTES OF MEETING OF THE FACULTY OF THE DEPARTMENT HELD IN THE SEMINAR ROOM OF CIVIL ENGINEERING ON 23 January 2015 AT 5 PM

The following faculty members of the Department attended the meeting:

1. Dr. Maneek Kumar
2. Dr. Rafat Siddique
3. Dr. Naveen Kwatra
4. Dr. Sarbjit Singh
5. Mr. Rajesh Pathak
6. Ms. Neena Garg
7. Dr. Prem Pal Bansal
8. Dr. Shweta Goyal
9. Dr. Shruti Sharma
10. Mr. Tanuj Chopra
11. Dr. Richa Babbar
12. Dr. Heaven Singh

The meeting was called to discuss and deliberate the setting up of the Program outcomes of the UG programs being offered by the Department of Civil Engineering. The faculty members gave their inputs with regards to the Bachelor program in Civil Engineering.

B. E. Civil Engineering

The PEOS should include the following parameters with regards to the skills to be imparted to the students:

- Information about mathematics, science and humanities
- Knowledge about management techniques
- Knowledge in human values and ethics
- Mould undergraduate students to undertake safe and economical designs
- Provide students with basic knowledge of the technological aspects of Civil Engineering
- Opportunities to take up special courses on structural, transportation, geotechnical, water resources and Environmental Engineering
- Understanding real life engineering problems
- Congenial environment that promotes learning, growth and imparts ability to work with inter-disciplinary groups in professional and industry.
- Strengthen the communicating skills of the students


Program Outcomes for the students must include the following:

- Ability to apply basic scientific and mathematical principles in engineering analysis and design

- Ability to conduct field and laboratory test to facilitate the construction operations and maintenance of civil engineering projects
- Ability to select the appropriate engineering materials and create economical design as per the latest applicable codal provisions
- Ability to analyze and produce construction drawings and estimates of the project
- Ability to apply the principles of construction planning and management and be conversant with safety procedures required to be adopted
- Should have adequate industry exposure through industrial visits, guest lectures and projects
- Should be conversant with the concept of EIA and disaster management of civil infrastructure projects
- Should have adequate knowledge of latest engineering software
- Should be able to work in inter and intra-disciplinary groups



(Maneek Kumar)



(Sarbjit Singh)



(Rajesh Pathak)



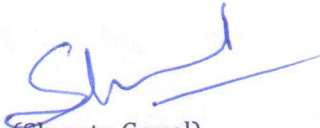
(Rafat Siddique)



(Neena Garg)



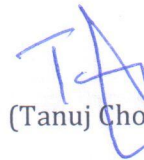
(Prem Pal Bansal)



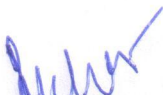
(Shweta Goyal)



(Shruti Sharma)



(Tanuj Chopra)



(Richa Babbar)



(Heaven Singh)



(Naveen Kwatra)

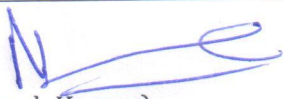
MINUTES OF MEETING OF THE FACULTY OF THE DEPARTMENT HELD IN THE SEMINAR ROOM OF CIVIL ENGINEERING ON 20 APRIL 2015 AT 5 PM

The following faculty members of the Department attended the meeting:

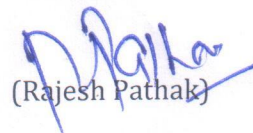
1. Dr. Maneek Kumar
2. Dr. Rafat Siddique
3. Dr. Naveen Kwatra
4. Dr. Sarbjit Singh
5. Mr. Rajesh Pathak
6. Ms. Neena Garg
7. Dr. Prem Pal Bansal
8. Dr. Shruti Sharma
9. Mr. Tanuj Chopra
10. Dr. Richa Babbar
11. Dr. Heaven Singh

The meeting was called to discuss and deliberate the setting up of the Program outcomes of the UG programs being offered by the Department of Civil Engineering as per the ABET guidelines. The faculty members gave their inputs with regards to the Bachelor program in Civil Engineering. It was decided to adopt Program outcomes A to K as per ABET from the academic year 2015-16 onwards for BE Civil Engineering Program.

1 (A)	An ability to apply knowledge of mathematics, science, and engineering.
2 (B)	An ability to design and conduct experiments, as well as to analyze and interpret data.
3 (C)	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
4 (D)	An ability to function on multidisciplinary teams.
5 (E)	An ability to identify, formulate, and solve engineering problems.
6 (F)	An understanding of professional and ethical responsibility.
7 (G)	An ability to communicate effectively.
8 (H)	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
9 (I)	A recognition of the need for, and an ability to engage in life-long learning.
10 (J)	A knowledge of contemporary issues.
11 (K)	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

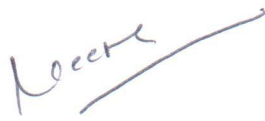

(Maneek Kumar)


(Sarbjit Singh)


(Rajesh Pathak)



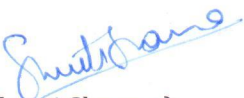
(Rafat Siddique)



(Neena Garg)




(Prem Pal Bansal)



(Shruti Sharma)



(Tanuj Chopra)



(Richa Babbar)



(Heaven Singh)



(Naveen Kwatra)

Department of Civil Engineering

Dated: September 20, 2016

MEETING NOTICE

There is a meeting at 5 PM on 23.09. 2016 in the Seminar room of CED regarding the discussion of Program Outcomes as per NBA guidelines. All the faculty members are requested to attend the meeting.



(HCED)

Dated: 23 September 2016

DEPARTMENT OF CIVIL ENGINEERING

MINUTES OF MEETING REGARDING ESTABLISHMENT OF PROGRAM OUTCOMES (PO's)

The meeting of all the faculty members was called to discuss the Program outcomes of the UG program being offered by the Department of Civil Engineering as per the NBA guidelines. Prior to this meeting, the NBA guidelines regarding Program Outcomes were circulated among the faculty members to receive their feedback / suggestions.

The following faculty members of the Department attended the meeting:

1. Dr. Maneek Kumar
2. Dr. Rafat Siddique
3. Dr. Naveen Kwatra
4. Dr. Sarbjit Singh
5. Mr. Rajesh Pathak
6. Ms. Neena Garg
7. Dr. Prem Pal Bansal
8. Dr. Shweta Goyal
9. Dr. Shruti Sharma
10. Mr. Tanuj Chopra
11. Dr. Richa Babbar
12. Dr. Heaven Singh
13. Dr. Aditya Parihar
14. Ms. Mansha Swami
15. Dr. Sahil Bansal
16. Dr. Tapas Karmaker
17. Dr. A.B Danie Roy
18. Mr. Raju Sharma
19. Ms. Reema Goyal

The exercise was carried out for the following program:

1. B. E. Civil Engineering

The feedback so received from the faculty members was discussed in the meeting and twelve different Program Outcomes as per the NBA guidelines were fixed.

FOR THE GRADUATE PROGRAM IN CIVIL ENGINEERING

PROGRAM OUTCOMES (PO'S)

The Civil Engineering program outcomes have been chosen to be consistent with the B. E. programme as per NBA guidelines. The Program Outcomes are listed below:

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write

effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

It was decided in the meeting that the measurement of these twelve program outcomes shall be carried out from now onwards. The graduating student exit survey form for 2017 passing out batches shall now consist of these 12 PO's as per the following format:-

Survey form to assess the level of attainment of program outcomes – Graduating Students

The program of BE Civil Engineering has been designed with certain program outcomes (the knowledge, skills and attitudes that students develop during the course of study). The students of graduating class are requested to answer the questionnaire given in this form to assess how well they judge they have attained the student outcomes set for the program. Please answer the questionnaire on a scale of 1 to 5 where 1 indicates little achievement or skill, and 5 indicates great deal of achievement.

	Survey questionnaire	Level of attainment (answer on a scale of 1 to 5)				
		1	2	3	4	5
	<i>I will be able to:</i>					
1	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.					
2	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.					
3	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental Considerations.					
4	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.					

5	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.					
6	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.					
7	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.					
8	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.					
9	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.					
10	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.					
11	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.					
12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.					

What do you plan to do after graduation at TU.? Tick (√) whichever is applicable


(a) Employment (give details like employer name): _____


(b) Higher education (give the title of degree): _____

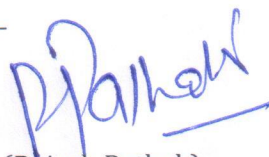
(c) Entrepreneur (specify): _____

Student Name: _____ Regd. No.: _____

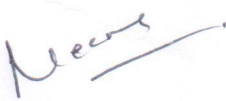
Suggestion, if any: _____


(Maneek Kumar)



(Sarbjit Singh)


(Rajesh Pathak)


(Rafat Siddique)


(Neena Garg)


(Prem Pal Bansal)



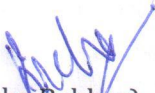
(Shweta Goyal)




(Shruti Sharma)



(Tanuj Chopra)



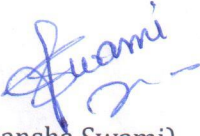
(Richa Babbar)



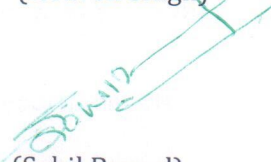
(Heaven Singh)



(Aditya Parihar)



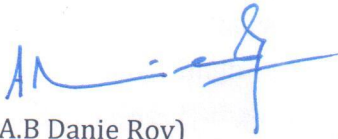
(Mansha Swami)



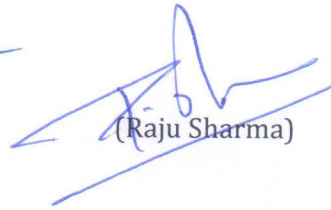
(Sahil Bansal)



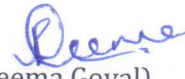
(Tapas Karmaker)



(A.B Danie Roy)



(Raju Sharma)



(Reema Goyal)



(Naveen Kwatra)