



# CEP & QIP, IIT BOMBAY



June 2019



## From PiC's Desk



**Prof.Preeti Rao**

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- Upcoming programmes
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## Link for CEP & QIP

<http://www.cep.iitb.ac.in/>

<http://www.qip.iitb.ac.in/>

**Potential TEQIP courses offered by IIT faculties [Click Here](#)**

In today's world, engineers and managers need to develop and update their professional skills almost continuously, particularly with technology changing very fast and also becoming more complex. This mandates lifelong learning for engineers and engineering college faculty members and ensures their suitability and relevance in discharging their duties. Training programmes have found to be useful for Industries and faculties in higher education. Professional trainings produce promising outcomes via the teaching learning process. For industry employees as well executive education is necessary to engage with various engineering processes. This leads to the growth of the organization through its skilled manpower.

Within the Continuing Education Programme cell in IITB, academic faculty conduct short-term training courses on topics of interest to industry. These topics cover a wide set of domains such as: 1. Engg. & Technology 2. Basic & Applied Science 3. Humanities & Social Science 4. Entrepreneurship & Startup 5. Energy & Green Technology 6. Management

There are different types of programmes such as: 1. Open Programmes: They are open for academia, industry and students and conducted on IITB campus. 2. In-House Programmes: They are designed as per the need of a particular organization and conducted either at IITB campus or at the organization's venue.

There are Quality Improvement Programmes as well conducted on IITB campus. These programmes are sponsored by AICTE for Engineering college teachers. These programmes contain subject domain related to Pedagogy.

Post-graduate level courses of IITB are also available under CEP and basically meant for working professionals who can attend classes in the evening.

Respective links and website details appear alongside in the column.

PG courses offered  
by IIT faculties for  
Autumn Semester  
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## Programmes in which TEQIP III institutes participated:

### 1. Three day course on **Academic Leadership Development Programme**

**3<sup>rd</sup> to 5<sup>th</sup> Jan.2019**

Coordinator: Prof.Pooja Purang, HSS



### 2. Five day course on **Scientific Computing with Python**

**11<sup>th</sup> to 15<sup>th</sup> February 2019**

Coordinator: Prof.Kumar Appaiah, Electrical Engg. Dept.



### 3. Five days course on **Research Approaches & Methods in management & Social Sciences**

**3<sup>rd</sup> to 7<sup>th</sup> June 2019**

Coordinator: Prof. Ashish Pande, SOM



## Open & In-house courses conducted recently:(Includes TEQIP Institutes)

### Open Courses:

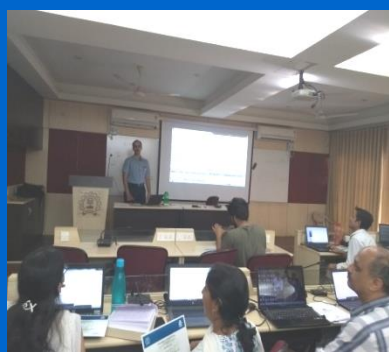
Name of course	Professor-Incharge	Brief contents
Research Approaches & Methods in Management & Social Sciences	Prof.Ashish Pande SOM, IITB	Qualitative & quantitative research methods, Writing research papers
Introduction to Machine Learning & Deep Learning	Prof.P S V Nataraj	Regression, Neural Networks, Python, MATLAB, Data Generation
Big Data Bioinformatics & Proteomics	Prof.Sanjeeva Shrivastava	Big Data, Proteomics, Genomics
Hot Rolling of steels	Prof. Prasad Manepalli	Metallurgy aspects of steel, Macroscopic & Microscopic aspects, Quality aspects
Introduction to Type Design	Prof.Girish Dalvi	Basics of type design, Font technologies,Letter design exercises
Finite Element Method & Applications in Civil Engg.	Prof.T.I.Eldho	FEM, BEM, Variational & Weighted residual, FEM package
Biology for Engineers	Prof.Ambarish Kunwar	Molecular Biology, Examples on Biophysics
Solar Thermal Technologies for process heat & Power	Prof.Anish Modi	Solar radiation & Geometry, Solar thermal collectors

### In-house courses customized as per requirements:

Name of course	Professor-Incharge	Organization for which conducted
Automation & Control Applications	Prof.P.S.V. Nataraj	NPCIL, Mumbai
Naval Operations Analysis	Prof.Manjesh Hanawal	Indian Navy
Elements of Chemical Engg.	Prof.Anurag Mehra	Reliance Industries
Grid connected power electronic systems for wind & solar energy	Prof.Anil Kulkarni	ETAP Automation Pvt. Ltd.
Simulation of power system transients	Prof.S.A.Soman	TATA Power Company Ltd.
Parallel Programming on GPUs	Prof.S.Gopalakrishnan	Sony India Software center
Planning, creating & Implementing MOOCs for faculties of Afganistan	Prof.Supratik Chakraborty	Ministry of Higher Education, Afganistan



Participants enjoying Prof.Pooja Purang's short term course on "Academic Leadership Development Programme" for TEQIP institutes



Prof.Kumar Appaiah delivering a lecture on "Python Programming" for college teachers of TEQIP & Industries

## Upcoming CEP Programmes

Name of Programme	Coordinator	Duration	Date of commencement
<a href="#">Comprehensive Introduction to IoT Design</a>	Prof.Pramod Murali	5 Days	15/7/2019
<a href="#">Basics of weather dynamics</a>	Prof.Sridhar Balasubramanian	2 Days	19/7/2019
<a href="#">Sustainable Businesses: A modern approach</a>	Prof.Yogendra Shatri	3 Days	11/9/2019
<a href="#">Protein Aggregation: Posing human diseases to formulation issues</a>	Prof.Samir Maji	5 Days	17/9/2019

## Upcoming QIP Programmes

Name of Programme	Coordinator	Duration
<a href="#">Applications of Remote sensing &amp; GIS for Hydrology &amp; Water Management</a>	Prof. J. Indu	July 15 - 19, 2019
<a href="#">Modelling Energy &amp; Water Fluxes at the land surface from remote</a>	Prof. Eswar Rajasekaran	October 14-18, 2019
<a href="#">Aircraft Stealth Technology</a>	Prof. Shripad Mahulikar	November 9 -13, 2019
<a href="#">Theory of plasticity &amp; Applications</a>	Prof. Prashant Date	November 25 - 29, 2019



Updated Library

### HIGH VELOCITY IMPACT LABORATORY



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## **Twinning Activity of TEQIP III institutes**

The aim of TEQIP is to enhance quality and equity in participating engineering education institutions and improve the efficiency of the engineering education system in focus states.

Under subcomponent 1.1(1.1.2.7), emphasis is given on Improvement in Teaching, Learning and Research competence. To increase faculty productivity and motivation, short term training programmes can be organized to keep faculty updated with latest technical trends. They can be deputed for short term CEP courses on cutting edge technology in IITs and IIMs which are the institutes of national importance.

Under subcomponent 1.3(1.3.2.4), Mentor institutes have to build twinning arrangements with their specified Focus state institutes in Subcomponent 1.1. This can be exhibited by organizing short term CEP courses and involving their respective focus institutes in the same programme. This will build capacity and improve performance.

Twinning activity programmes carry weightage during performance audit of TEQIP III. Encouragement to women teachers to participate in CEP courses and training programmes would further increase the weightage.

With this aim IIT Bombay has started twinning activity CEP courses where Mentor institutes (Subcomponent 1.3) invite their Focus state partner (Subcomponent 1.1) for this short term programmes. These programmes can be held at IIT Bombay campus or can be conducted in-house. The financial structure of these courses is as per the norms laid down by IIT Bombay.

The major benefit of conducting these courses in IIT Bombay campus is that participants can visit the state of the art laboratories, can get easy access to course related facilities, can interact with IIT Bombay faculties and enjoy nature friendly campus stay.

If any Mentor institute is interested to undergo twinning activity courses can contact the undersigned:

Ms. Sushama, CE & QIP office, IIT Bombay

Email:qipstc@gmail.com

Mobile: 09819284998

# Testimonial 1

by IOCL

"We are thankful to IIT Bombay for conducting training modules for our young executives which were very effective and comprehensive. The program design and teaching methodology was precisely planned and we are confident that the knowledge acquired by the executives has been invaluable and will help them in addressing challenges in their working. Special thanks to all the faculty members who were very professional in their approach."

**Vikas Saraswat,**

Deputy General Manager (Management Services)  
Indian Oil Corporation Limited,  
Pipelines Division Head Office  
Noida

# Testimonial 2

by participants of the open course "Research Approaches and Methods in Management & Social Sciences"

Prof. Ashish Pande, SOM

## Feedback from Participants:

- The sessions are amazing and wonderful. I would like to attend it again.
- Good Quality sessions. Explained nicely.
- Good Work! Keep it up!
- Well organized sessions, Thanks

# Testimonial 3

by participants of MCGM for the In-house course on " Construction & Quality of Road Works"

Prof. Dharamveer Singh, Civil Dept.

## Feedback from Participants:

- Invite for more such CEPs. Thanks a lot.
- Keep conducting such important & innovative programmes regarding new technologies of construction industries so that we can have updated knowledge of the same.
- IIT is already doing the best! Such programmes filter the research outcome from IIT to the grassroot level people.
- Overall training is good. It has enhanced my practical basics about roads, SWD, Hydraulics

