

# TEQIP School on System & Control

4 – 9 August 2015

## Faculty Feedback

### Workshop

<i>Questions</i>	<i>Excellent</i>	<i>Good</i>	<i>Ordinary</i>
Clarity of communication about workshop	21	5	
Organization of the sessions	23	3	
Quality of lectures	17	9	
Quality of posters	6	11	
Effectiveness of discussions	14	12	
Effectiveness of learning experience	18	8	
	<i>Appropriate</i>	<i>Short</i>	<i>long</i>
Duration of workshop	18	2	4
	<i>Definitely</i>	<i>Maybe</i>	<i>No</i>
Would you like to have more such sessions?	22	2	2
Would you like e-lectures by experts on special topics?	20	5	
Suggest specific topic that you would like additional expert lectures on	<ul style="list-style-type: none"> <li>➤ System Identification</li> <li>➤ Signal processing and Warm intelligence</li> <li>➤ Power Electronics, Power Systems</li> <li>➤ Embedded System, Automation</li> <li>➤ Non Linear Robust Control</li> <li>➤ System Identification and Modelling</li> <li>➤ Optimization techniques and soft computing tools</li> <li>➤ Computer Science and Engineering</li> <li>➤ Core areas in Control Theory</li> <li>➤ Optimal Control and Adaptive Control</li> <li>➤ How to develop and write programmes on Neural Network and preprocessing technology</li> <li>➤ Game theory, ANN and Fuzzy</li> <li>➤ Multi Agent System</li> <li>➤ VLSI and Microelectronics</li> <li>➤ Discrete Control System</li> <li>➤ Fraction order control system Design and Modelling</li> <li>➤ Intelligent Control Applications</li> <li>➤ Sliding Mode Control</li> <li>➤ Congestion control in Networks</li> </ul>		

<p>Additional Suggestions</p>	<ul style="list-style-type: none"> <li>➤ Duration of the course might have been expanded.</li> <li>➤ One week might have been devoted to cover the basics and another one to cover advanced topics.</li> <li>➤ Lab view and its industrial application of Industrial Instrumentation might have been given.</li> <li>➤ Some Industrial visit and Sight seen might have been arranged.</li> <li>➤ Examples on applications of ANN, Fuzzy and Game theory.</li> <li>➤ Not to give more topics rather than elaborated one or two topics.</li> <li>➤ Hands on Lab session was less.</li> <li>➤ Reduce Aerospace content and adding Power Electronic Control Aspects.</li> <li>➤ Workshop would have been more effective if contents was based on PG syllabus.</li> <li>➤ Simulation based lab may be conducted for one or two class.</li> </ul>
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## Teaching

<p>Which subjects do you teach?</p>	<ul style="list-style-type: none"> <li>➤ Process Control and Optimization</li> <li>➤ Signals and System, Communication Systems and Signal Analysis</li> <li>➤ Sliding Mode Control</li> <li>➤ Robot Dynamics and control, Optimal Control</li> <li>➤ Circuit Theory and Control</li> <li>➤ NN Fuzzy logic, Control System and Energy Management and Auditing</li> <li>➤ DSP and System Identification</li> <li>➤ Electronic and Communications , Electrical Instrumentation</li> <li>➤ Microprocessor, CSA and Digital Electronics</li> <li>➤ Power System Control and Operations.</li> <li>➤ Neural Network and Digital Signal Processing</li> <li>➤ Numerical Analysis lab and C-programming</li> <li>➤ Industrial drives and applications</li> <li>➤ Controls and Signal Processors</li> <li>➤ Modern control Systems aand Linear Control System</li> <li>➤ DIP, Data Structure</li> <li>➤ Power Electronics and Machines</li> <li>➤ ADSP, Estimation and identification technique, soft Computing</li> <li>➤ Modelling</li> </ul>
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What is average student to teacher ratio in your institute?	<ul style="list-style-type: none"> <li>➤ 1:15</li> <li>➤ 1:12</li> <li>➤ 1:11</li> <li>➤ 1:20</li> <li>➤ 1:15</li> <li>➤ 1:3</li> <li>➤ 1:15</li> <li>➤ 1:15</li> <li>➤ 1:20</li> <li>➤ 1:50</li> <li>➤ 1:15</li> <li>➤ 1:15</li> <li>➤ 1:30</li> <li>➤ 1:12</li> <li>➤ 1:15</li> <li>➤ 1:12</li> <li>➤ 1:15</li> <li>➤ 1:15</li> <li>➤ 1:10</li> <li>➤ 1:30</li> </ul>			
<b>Questions</b>	<b>YES</b>	<b>NO</b>		
Do you have additional support for teaching ( tutors, graders, teaching Assistants, etc)?	12	12		
Do you give class projects for UG classes?	19	5		
Do you give class projects for PG classes?	14	8		
Do you have sufficient resources for laboratory courses?	15	9		
	<b>Sufficient</b>	<b>Inadequate</b>		
Is the library/journal/e-connection support adequate?	14	9		
	<b>Definitely</b>	<b>May be</b>	<b>No</b>	
Would you like to have common (TEQIP) repository of course material?	21	1		
Would you like to visit IITK to participate in and develop course material (existing or new)	20	3		
Would you like to participate in creation of the repository material (course files/lab. Manuals/question bank/etc)	20	3		
	<b>e-courses</b>	<b>Workshops</b>	<b>Content</b>	<b>none</b>
How can IITK effectively help you prepare for teaching?	15	22	10	

<p>How can TEQIP help improve your teaching?</p>	<ul style="list-style-type: none"> <li>➤ Workshops on regular topics may be conducted during winter and summer recess.</li> <li>➤ Discussion oriented workshops where we can exchange our teaching experience.</li> <li>➤ Permitting for FDPS</li> <li>➤ Working as visiting researchers at renowned Institute and attending courses at IITs.</li> <li>➤ More pedagogy material should be available and also Online classrooms and Online lectures of expert can be shared at other institutes also.</li> <li>➤ By putting problem solving tasks for the audience and also TEQIP can implement it by Organizing some dedicated subjects workshops.</li> <li>➤ Expert hands on training sessions apart from lectures.</li> <li>➤ Such Courses improves alot to our teaching methodology.</li> <li>➤ By providing infrastructure support</li> <li>➤ By exposure of new topics and ways of teaching styles.</li> <li>➤ Industrial Visits, Lab visits and Paedacogy Classes and workshops.</li> <li>➤ By providing frequent visit to the faculty.</li> <li>➤ By giving NPTEL videos lecture and also all the e-courses lecture video to our department.</li> <li>➤ Through FDP joint projects and joint research assignments.</li> <li>➤ Encouraging teaching , learning, Collaborating research, organizing development programme and inviting us to attend these programs in apex institutes like IITs and parallely funding for setting up modern laboratory.</li> <li>➤ TEQIP has helped to create infrastructure, learning resources and funding for R&amp;D activity.</li> <li>➤ Gives exposure to excellent quality of course material teaching at institutes of higher learning like IITs.</li> <li>➤ By helping to attend such courses which not only give ideas to improve course contents but also helps to understand the background of these contents.</li> </ul>
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## Research

<i>Questions</i>	<i>Definitely</i>	<i>Maybe</i>	<i>No</i>
<p>Would you like to visit an IIT for a visiting-faculty/ post-doctoral fellow, if offered (viaTEQIP)?</p>	22	2	
<p>Would you like to share/use research infrastructure at IITK, if made available?</p>	25	1	

Would you like to conduct collaborative research with IITK?	24	2	
Would you like lectures by experts (Indian and international) on niche research areas/topics?	24	2	
Do you want special-topic conferences?	23	2	1
How can TEQIP help improve your research?	<ul style="list-style-type: none"> <li>➤ Interaciton with faculty member at IIT kanpur has opened up new areas of research . The teachers at IIT kanpur motivated through their research and dedication of teaching.</li> <li>➤ By providing assistance in terms of funding research projects attending conferences funding for creating research facilities.</li> <li>➤ By funding for a R&amp;D lab and also assess some specific journals other institute.</li> <li>➤ By funding money for lab visit to IIT kanpur in summer.</li> <li>➤ By allowing participation in workshop, student projects and attending conferences.</li> <li>➤ Provide ME students collaborative PG project.</li> <li>➤ Exposure to latest research areas.</li> <li>➤ By giving a chance of one/two years internship in these Institutes specifically the IITs.</li> <li>➤ By allowing us to give more funds to buy equipments which costs around Rs 50 lacs and more.</li> <li>➤ By providing Infrastructure support.</li> <li>➤ By providing opportunity to interact with experts and gain knowledge on recent advancements on the topics of interest.</li> <li>➤ If there is a possibilty of reducing the workload at our institute it could be very beneficial.</li> <li>➤ By incorporating the algorithms implementation on hardwares in real time application. This is the area where most of researchers are facing the problems.</li> <li>➤ Some experimental set up which is available at IIT can be made available to us for experimentation and validation of research work.</li> <li>➤ More opportunity of working at IIT .</li> <li>➤ Providing facility to interact with renowned researchers.</li> <li>➤ Joint research projects may be a good option where a part of a big projects may be given to other colleges.</li> <li>➤ It provides diverse topics of research fields. Nowadays interdisciplinary research topics are fast evolving. TEQIP undoubtedly brings us all together in a single platfrom and improves our knowledge in diverse topics.</li> </ul>		