

Department of Instrumentation Engineering

List of Equivalent Subjects from SWAYAM/NPTEL for Credit Transfer

Sr. No.	Institute Course		Details of equivalent course from SWAYAM/NPTEL	Date of Registration
	Course Code	Title of the Course		
S.Y. B.Tech Semester-I				
1.	PCC-IN201	Sensors and Transducers	Industrial Instrumentation, Prof. Alok Barua, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
2.	PCC-IN202	Electronics Devices and Circuits	Semiconductor Devices and Circuits Prof. Sanjiv Sambandan, IISc Bangalore	July-Oct 2020
			Microelectronics: Devices To Circuits Prof. Sudeb Dasgupta, IIT Roorkee	
			Analog Electronic Circuit Prof. Shouribrata Chatterjee	
3.	PCC-IN203	Circuit Theory	Circuit Theory Prof. S. C. Dutta Roy, IIT Delhi	Online lecture series is available but not for registration. Content matches with our course.
4.	PCC-IN204	Electrical Machines	Electrical Machines – I Prof. Tapas Kumar Bhatt, IIT Kharagpur	July-Oct 2020
S.Y. B.Tech Semester-II				
1.	PCC-IN205	Linear Integrated Circuits	Op-Amp Practical Applications: Design, Simulation and Implementation Prof. Hardik Jeetendra Pandya, IISc Bangalore	July-Oct 2020
2.	PCC-IN206	Digital Electronics and Logic Design	Digital Circuits Prof. Santanu Chattopadhyay, IIT Kharagpur	July-Oct 2020
			Digital Electronic Circuits Prof. Goutam Saha, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
3.	PCC-IN207	Signals and Systems	Principles of Signals and Systems Prof. Aditya K. Jagannatham, IIT Kanpur	Online lecture series is available but not for registration. Content matches with our course.
4.	PCC-IN208	Electrical and Electronics Measurements	Electrical Measurement and Electronic Instruments Prof. Avishek Chatterjee, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.

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T.Y. B.Tech Semester-I				
1.	PCC-IN301	Feedback Control Systems	Control engineering Prof. Ramkrishna Pasumarthy, IIT Madras	July-Oct 2020
			Control systems Prof. Shankar Raman, IIT Madras	July-Oct 2020
2.	PCC-IN302	Industrial Instrumentation	Sensors and Sensor Circuit Design Dr. James Zweighft and Dr. Jay Mendelson University of Colorado	5 week course on Coursera
3.	PCC-IN303	Digital Signal Processing	Discrete-Time Signal Processing Prof. MrityunjayChakraborty, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
4.	PCC-IN304	Microprocessor and Microcontroller	Microprocessor and Microcontroller Prof. Santanu Chattopadhyay, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
5.	PCC-IN305	Industrial Data Communications	Data Communication Prof. Ajit Pal, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
6.	PCC-IN306	Unit Operations and Instrumentation	Mass Transfer Operations-II Dr. Chandan Das, IIT Guwahati	Online lecture series is available but not for registration. Content matches with our course.
			Mechanical Unit Operation Prof Nanda Kishore, IIT Guwahati	Online lecture series is available but not for registration. Content matches with our course.
T.Y. B.Tech Semester-II				
1.	PCC-IN307	Process Control	Industrial Automation and Control Prof. S. Mukhopadhyay, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
2.	PCC-IN308	Control System Components	Industrial Safety Engineering Prof. Jhareswar Maiti, IIT Kharagpur	July-Oct 2020
3.	PCC-IN309	Distributed Control System	Industrial Automation and Control Prof. S. Mukhopadhyay, IIT Kharagpur Prof. S. Sen, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.

4.	PCC-IN310	Power Electronics	Power Electronics Prof. G. Bhuvaneshwari, IIT Delhi	July-Oct 2020
5.	PEC-IN311	Power Plant Instrumentation	Steam Power Engineering Prof. Vinayak N Kulkarni, IIT Guwahati	July-Sept 2020
6.	PEC-IN312	Digital System Design	Digital Circuits Prof. Santanu Chattopadhyay, IIT Kharagpur	July-Oct 2020
			Digital Electronic Circuits Prof. Goutam Saha, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
7.	PEC-IN313	Optical Instrumentation	Semiconductor Optoelectronics Prof. M. R. Shenoy, IIT Delhi	July-Oct 2020
			Fiber Optics Communication Technology Prof. Deepa Venkitesh, IIT Madras	July-Oct 2020

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Final Year B.Tech Semester-I				
1.	IN403	Chemical and Analytical Instrumentation	Spectroscopic Techniques for Pharmaceutical and Biopharmaceutical Industries Prof. Shashank Deep, IIT Delhi	July-Oct 2020
2.	IN408	Modern Control Theory	Advanced linear continuous control systems: Applications with MATLAB programming and simulink Prof. Yogesh Vijay Hote, IIT Roorkee	Online lecture series is available but not for registration. Content matches with our course.
3.	IN405	Biomedical Instrumentation	Introduction to Biomedical Engineering Dr. Kirill Aristovich Peter, The great St. Petersburg Polytechnic University.	5 July 2020 (5 week course on Coursera)
Final Year B.Tech Semester-II				
1.	IN402	Instrumentation Project Management	Project Planning and Control Prof. Koshy Varghese, IIT Madras	July-Sept 2020
			Project Management for Managers Prof. Mukesh Kumar Barua, IIT Roorkee	20 July-9 Oct 2020
2.	IN406D	Advance Sensors	Industrial Instrumentation,	Online lecture series is available

			Prof. Alok Barua, IIT Kharagpur	but not for registration. Content matches with our course.
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	Course Code	Title of the Course		
First Year M.Tech Semester-I				
1.	PCC-IN501	Process Instrumentation	Chemical Process Control Prof. Sujit Jogwar, IIT Bombay	Aug-Oct 2020
2.	PCC-IN503	Modern Control Theory	Advanced linear continuous control systems: Applications with MATLAB programming and simulink Prof. Yogesh Vijay Hote, IIT Roorkee	Online lecture series is available but not for registration. Content matches with our course.
3.	PEC-IN504	Biomedical Instrumentation	Introduction to Biomedical Engineering Dr. Kirill Aristovich Peter, The great St. Petersburg Polytechnic University.	5 July 2020 (5 week course on Coursera)
4.	PEC-IN512	Artificial Intelligence in control	Introduction to Fuzzy set Theory, Arithmetic and logic Prof. Niladri Chatterjee, IIT Delhi	July-Oct 2020
First Year M.Tech Semester-II				
1.	PCC-IN514	Computerize Process Control		
2.	PCC-IN513	Instrumentation System Design	Project Planning and Control Prof. Koshy Varghese, IIT Madras	July-Sept 2020
			Project Management for Managers Prof. Mukesh Kumar Barua, IIT Roorkee	20 July-9 Oct 2020
3.	PEC-IN515	Industrial Automation	Industrial Automation and Control Prof. S. Mukhopadhyay, IIT Kharagpur Prof. S. Sen, IIT Kharagpur	Online lecture series is available but not for registration. Content matches with our course.
4.	PEC-IN519	Digital Image Processing	Digital Image Processing Prof. Parbir Kumar Biswas, IIT Kharagpur	July-Oct 2020

Head