Dr. B.R. Ambedkar Center of Excellence (CoE)

Eleven laboratories under Centre of Excellence (CoE) Project in "Digitization and Industry 4.0" has been established in the institute in collaboration with SIEMENS India Pvt. Ltd.. The following activities for students of engineering colleges, polytechnics and professionals from industry and academia are as under:

Sl.No.	Courses	Course Fees (Rs.)
1.	Summer Training Certificate Courses (4 to 6 weeks/80 hours) for Students of AICTE approved institutes	6,000/- + GST @ 18%
2.	Customized Courses for Industry Personnel (1 to 2 weeks/40 hours)	10,000/- + GST @ 18%
3.	Advanced Certificate Courses for Students (about 12 weeks or 3 months: 240 hours)	12,000/- + GST @ 18%
4.	Project / Dissertation work (6 months duration)	15,000/- + GST @ 18%
5.	One Year training (Post B.Tech) in relevant Branch	18,000/- + GST @ 18%

Note : Registration will start from 20/6/2023

All the above activities shall be accomplished by faculty and staff of the institute apart from collaborative efforts with Industry partners (SIEMENS & 3D Engineering Pvt. Ltd.). Interested candidates, institutions and industries are invited for following courses:

Target Group	Duration	SIEMENS- NITTTR Bhopal Certified Courses	Coordinator / Co-Coordinator
1. Product Design & Validation Lab			
Engineering College / Polytechnic College Students **Seats :** (25 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Automotive Component Design 2. Heavy Engineering Design 3. Design & Drafting 4. Aero Component Design	**Dr. K.K. Jain** 9425017472, kkjain@nitttrbpl.ac.in **Dr. Vandana Somkuwar** 9425006075, vsomkuwar@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
2. Manufacturing Process Digitalization Lab			
Engineering College / Polytechnic College Students **Seats :** (25 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Manufacturing Process Digitalization 2. Plant Simulation 3. Process Simulation 4. Robotic Simulation 5. Human Simulation 6. Product Lifecycle Management 7. Teamcenter Administrator	**Dr. K.K. Jain** 9425017472, kkjain@nitttrbpl.ac.in **Dr. Vandana Somkuwar** 9425006075, vsomkuwar@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	

Target Group	Duration	SIEMENS- NITTTR Bhopal Certified Courses	Coordinator / Co-Coordinator
3. Simulation, Optimization & Test Lab			
Engineering College / Polytechnic College Students **Seats :** (25 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Structural and Thermal simulation 2. CAE For Aerospace 3. CAE For Automotive 4. CAE using star CCM+ 5. Acoustics and Vibration (NVH) testing	**Dr. A.K. Sarathe** 9425392466, aksarathe@nitttrbpl.ac.in **Dr. K.K. Jain** 9425017472, kkjain@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above, optimization and NVH testing	
4. Internet of Things (IoT) Lab			
Engineering College / Polytechnic College Students **Seats :** (25 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Industrial IOT (IIOT) 2. IOT Application development 3. IIOT Platform development	**Dr. M.A. Rizvi** 9425012014, marizvi@nitttrbpl.ac.in **Dr. Anjali Potnis** 9424412709, apotnis@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
5. CNC Controller Lab			
Engineering College / Polytechnic College Students **Seats :** (25 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. CNC Technologies 2. CNC Milling 3. CNC Turning	**Dr. A.K. Sarathe** 9425392466, aksarathe@nitttrbpl.ac.in **Dr. K.K.Jain** 9425017472, kkjain@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
6. Industrial Automation Lab			
Engineering College / Polytechnic College Students **Seats :** (20 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Industrial Automation 2. PLC 3. PLC and SCADA	**Dr. Vandana Somkuwar** 9425006075, vsomkuwar@nitttrbpl.ac.in **Dr. C.S. Rajeshwari** 9826287252, csrajeshwari@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	

Target Group	Duration	SIEMENS- NITTTR Bhopal Certified Courses	Coordinator / Co-Coordinator
7. Process Instrumentation Lab			
Engineering College / Polytechnic College Students **Seats :** (20 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Industrial Sensors and Transducers 2. Advanced Industrial Process Instrumentation	**Dr. Anjali Potnis** 9424412709 apotnis@nitttrbpl.ac.in **Dr. M.A. Rizvi** 9425012014 marizvi@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
8. Electrical & Energy Studies Lab			
Engineering College / Polytechnic College Students **Seats :** (20 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Servo Drives and LVSG 2. Energy saving practices	**Dr. C.S. Rajeshwari** 9826287252, csrajeshwari@nitttrbpl.ac.in **Dr. A.S. Walkey** 8989792155, aswalkey@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
9. Mechatronics Lab			
Engineering College / Polytechnic College Students **Seats :** (20 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	1. Applications of Mechatronics 2. Integrated Automation	**Dr. Vandana Somkuwar** 9425006075, vsomkuwar@nitttrbpl.ac.in **Prof. Susan S. Mathew** 9425649673, ssmathew@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
10. Additive Manufacturing Lab			
Engineering College / Polytechnic College Students **Seats :** (12 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	• CAD & 3D Prototyping • Reverse Engineering through Rapid prototyping	**Dr. K.K. Jain** 9425017472, kkjain@nitttrbpl.ac.in **Dr. A.K. Sarathe** 9425392466, aksarathe@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	
11. Robotics Lab			
Engineering College / Polytechnic College Students **Seats :** (10 Nos.)	Certificate courses (4-6 Weeks: 80 Hrs)	• Industrial Assembly using Robot • Welding using Industrial Robot	**Dr. A.K. Sarathe** 9425392466, aksarathe@nitttrbpl.ac.in **Dr.Vandana Somkuwar** 9425006075, vsomkuwar@nitttrbpl.ac.in
Industry Personnel	Customized Courses (1-2 Weeks)	To be decided as per client requirements as listed above	

Advanced Certificate Courses
(3 months/240 Hrs)

Sr. No.	Lab/ Domain Area	Course Title	Module	Prerequisite (Training/ Experience)
1.	**Lab Name** ● Product Design and Validation ● Additive Manufacturing **Domain Area** ● CAD ● AM	a. Advanced Certification in CAD & 3D Prototyping b. Advance Certification in Aerospace Component design & Prototypes c. Advance Certification in Automotive Design	● NX_Basic Design ● Product Design Fundamentals ● Loading and Working with Assemblies ● Design in Context of an Assembly ● Documenting with Drafting ● Model Based Definition using PMI ● CAD Surface Modeling Processes ● Routing Mechanical ● Sheet Metal Design ● CAD transition ● Assembly Modeling - Advanced ● Molded & Cast Part Design ● Additive Manufacturing	N.A.
2.	**Lab Name** ● Simulation Optimization and Test **Domain Area** ● CAE	a. Advanced Certification Course in CAE using star CCM+ (Aerospace) b. Advanced Certification Course in CAE using star CCM+ (Automotive)	• Simcenter: CFD analysis - Fundamentals of Simcenter STAR-CCM+ • Simcenter: CFD analysis - Advanced topics in Simcenter STAR-CCM+ • Simcenter: CFD analysis - Multiphase flows in Simcenter STAR-CCM+	N.A.
3.	**Lab Name** ● Product Design and Validation ● Simulation Optimization and Test **Domain Area** ● CAD ● CAE	Advanced Certification in Design & Analysis (CAD & CAE)	● NX_Basic_Design ● Product_Design_Fundamentals ● Loading and Working with Assemblies ● Design in Context of an Assembly ● Documenting_with_Drafting ● Sheet_Metal_Design • Simcenter: Simcenter 3D Motion • Simcenter: Simcenter 3D Pre/Post • Simcenter: Simcenter 3D Thermal Multiphysics	N.A.
4.	**Lab Name** ● Manufacturing Process Digitalization ● Product Design and Validation **Domain Area** ● CAD ● CAM	Advanced Certification in Design & Manufacturing (CAD & CAM)	● NX_Basic_Design ● Product_Design_Fundamentals ● Loading and Working with Assemblies ● Design in Context of an Assembly ● Documenting_with_Drafting ● Sheet_Metal_Design ● Managing NC Programming Data ● Machining a Prismatic Part ● Turning Manufacturing ● Other Turning Operations ● Fixed Axis and Multi-Axis Milling	N.A.

Sr. No.	Lab/ Domain Area	Course Title	Module	Prerequisite (Training/ Experience)
			● Turbomachinery and other Multi-axis options ● Other Manufacturing Options	
5.	**Lab Name** ● Manufacturing Process Digitalization ●Product Design and Validation ● CNC Controller **Domain Area** ● CNC ● CAD ● CAM	Advanced Certificate in Advanced Manufacturing	● Basics of CNC Machines ● Turning NC Programming ● Milling NC Programming ● NX_Basic_Design ● Managing NC Programming Data ● Machining a Prismatic Part ● Turning Manufacturing ● Other Turning Operations ● Fixed Axis and Multi-Axis Milling ● Turbomachinery and other Multi-axis options ● Other Manufacturing Options	N.A.
6.	**Lab Name** ● Manufacturing Process Digitalization ● Product Design and Validation **Domain Area** ● CAD ● PLM	Advanced Certification in Design & PLM	● NX Basic Design ● Loading and Working with Assemblies ● Design in Context of an Assembly ● Documenting with Drafting ● Teamcenter CAD Integrations ● Using Teamcenter ● Product Configurator ● Working with Classic Variants and Revision Effectively ● Teamcenter Application Administration ● Teamcenter Data Model Administration ● Simulation Process Management	N.A.
7.	**Lab Name** ● Manufacturing Process Digitalization **Domain Area** ● DM	Advanced Certification in Process & Plant Simulation	● Process Simulate Basics ● Process Simulate Part Flow Simulation ● Process Simulate Robotic Simulation ● Process Simulate Human Simulation ● Process Simulate Intermediate Robotics(CEE) ● Plant Simulation Basics ● Plant Simulation Advanced	N.A.
8.	**Lab Name** ● Manufacturing Process Digitalization ● Robotics **Domain Area** ● DM	Advanced Certificate in Process Simulate and Industrial Robot	● Process Simulate Basics ● Process Simulate Part Flow Simulation ● Process Simulate Robotic Simulation ● ABB Robotics ● ABB Yumi Collaborative Robot ● ABB Arc Welding Robot ● Process Simulate Intermediate Robotics(CEE) ● Process Simulate Advanced Robotics	N.A.
9.	**Lab Name** ● Industrial	Advanced Certification in Industrial Automation,	● Basics PLC & HMI ● SCADA	N.A.

Sr. No.	Lab/ Domain Area	Course Title	Module	Prerequisite (Training/ Experience)
	Automation ● Mechatronics ● Process Instrumentation **Domain Area** ● Industrial Automation ● Mechatronics ● Process Instrumentation	Mechatronics & Process Instrumentation	● Mechatronics ● Mechatronics Fundamentals ● SIMATIC PCS 7 Basics ● Process Instrumentation	
10.	**Lab Name** • Industrial Automation • Mechatronics • Process Instrumentation • Electrical and Energy Studies • Internet of Things **Domain Area** • Industrial Automation • Mechatronics • Process Instrumentation • Electrical • IOT	Advanced certification in Industry 4.0	● Basics PLC & HMI ● Mechatronics ● Process Instrumentation ● Basic AC DC ● MindSphere ● MindSphere : Getting Connected ● MindSphere Architecting Solutions ● MindSphere: Analyzing Data ● MindSphere: Developing Applications	Basic knowledge of Plant Process, Digital Electronics
11.	**Lab Name** • Electrical and Energy Studies • Industrial Automation **Domain Area** • Electrical • Industrial Automation	Advanced certification in Energy Saving and Industrial automation	• Basic AC DC • Basic Course on Servo Drives • Switch Gear • Basics PLC & HMI • SCADA	Basic knowledge on electrical and electronics

COURSE FEE & LODGING/BOARDING CHARGES

Course Fees	• As mentioned in the fee details table, which includes training, learning material and high tea during training. • Fees are subject to change as decided by the competent authority of NITTTR, Bhopal.
Certificate and Advanced Certificate Courses for Students (4-6 weeks / 3 months)	
Hostel Charges per student	Rs.100 + applicable GST per day (Non AC rooms on twin sharing) Rs.200 + applicable GST per day (AC rooms on twin sharing)
Food Charges per student	Rs.260 + applicable GST per day (Morning Tea + Morning Breakfast + Lunch + Evening Tea + Dinner)
Customized Courses for Teachers and Industry Personnel (1 to 2 weeks)	
Hostel Charges per person	Rs.1,500 + applicable GST per day (AC rooms on single occupancy) Rs.800 + applicable GST per day (AC rooms on twin sharing)
Food Charges	Rs.600 applicable GST per day (Morning Tea + Morning Breakfast + Lunch + Evening Tea + Dinner)

For further information, please contact:

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