(Form for the Submission of Proposal)

Global e-Learning Program for International Students and Faculties

(IIT-I Global e-Learning Program)

International Relations Office

Indian Institute of Technology Indore

1	Title of the Global e-Learning Program (e.g.: "Machine Learning in Energy Science")	**Mechatronics System Design for Smart and Digital Manufacturing**
2	Proposed dates and duration of the program	May 18th to 23rd 2026
3	Name of the Course Coordinator(s) (Name, Designation, Department, email, contact number)	Prof. Palani Iyamperumal Anand, Department of Mechanical Engineering, Email-palaniia@iiti.ac.in Contact: 9009356097
4	Details of the Course Instructor(s) from IIT Indore (Name, Designation, Department, email, contact number)	Prof.Palani Iyamperumal Anand, Department of Mechanical Engineering, Email-palaniia@iiti.ac.in Contact: 9009356097
5	Names of the Proposed invited experts outside IIT Indore (Name, Designation, Department/Institute, email, contact number)	Prof.G.L.Samuel, IIT Madras Prof.Chaitanya, IIT Palakkad
6	Details and Modules of the program (Lectures and Tutorials)	Lecture 1: fundamental of Mechatronics Systems Lecture 2: Actuators for Smart Manufacturing -1 Lecture 3: Smart Actuators for Intelligent Manufacturing - 2 Lecture 4: Sensor for Digital Manufactruing-1 Lecture 5: IOT Modules and Interfacing systems for Digital Manufactruing Lecture 6: Digital Twin Development and Machine Skin Technology
7	Target groups (UG/PG/Ph.D. Students or Faculties)	UG, PG,Ph.D, Faculties
8	Pre-Requisites and Minimum Education Qualification (if any)	Candidates Pursuing Undergraduate and post graduate degree are eligible to apply
6	How will this program benefit the participants? (in bullet points)	**Strong interdisciplinary skills** Participants learn how **mechanical systems, electronics, control systems, and software** work together. This

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		holistic understanding is essential for designing and maintaining smart manufacturing systems. **Industry-relevant knowledge (Industry 4.0)** The course introduces concepts such as: • Smart factories • Digital manufacturing • Cyber-physical systems • Industrial IoT (IIoT) This helps participants stay aligned with current and future industrial practices.
Submitted by 31st (Signature and Date) Course Coordinator(s)		**Approval and Remarks** (Signature and Date) Dean, International Relations, IIT Indore