



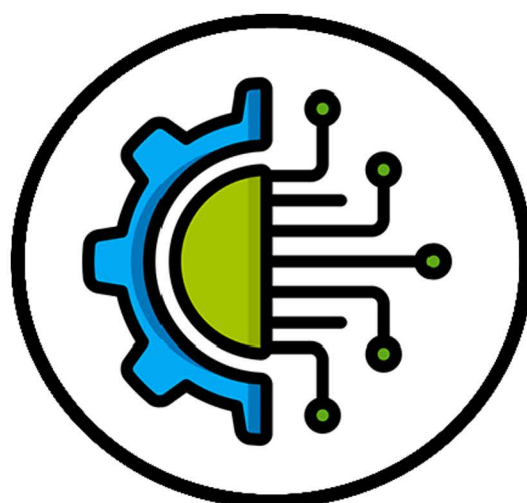
SWAYAM July 2026

**COURSES OFFERED UNDER
TEACHER EDUCATION**

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING
AND RESEARCH**

Institution Deemed to be University under Distinct Category,
A Centrally Funded Technical Institute Ministry of Education,
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NITTTR offers the courses in the following clusters



Engineering and Technology



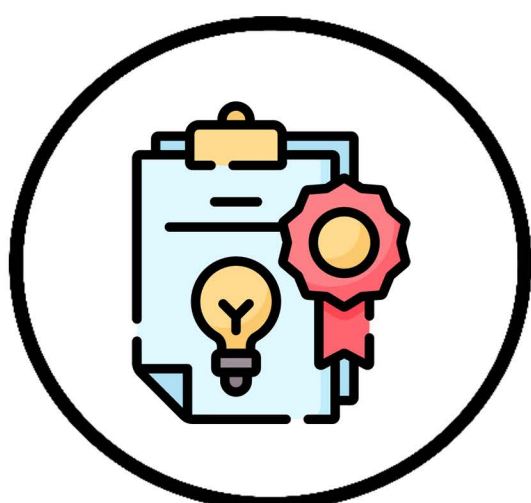
**Leadership, Policy
and Accreditation**



**Entrepreneurship and
Business Management**



**Education and
Instructional Methods**



**Legal and
Intellectual Property**



**Communication, Skills
and Knowledge Systems**



**Technical Training
in Vernacular Language**



Communication, Skills and Knowledge Systems





Join the Course

COMMUNICATION SKILLS MODES & KNOWLEDGE

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Classroom Communication: An Introduction
- Listening and Speaking
- Reading and Writing
- Barriers to Classroom Communication
- Active Learning
- Role of Media in classroom Communication
- Use of Board (Whiteboard/ Blackboard)
- Feedback



Coordinated By
Er. Amandeep Kaur
Assistant Professor, NITTTR Chandigarh



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Join the Course

ENGLISH FOR RESEARCH PAPER WRITING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of Academic English in Research
- Effective Writing Style for Research Papers
- Advanced Reading Skills for Researchers
- Research Vocabulary Development
- Grammar Refinement for Research Writing
- Mastery in Revising, Editing, And Proofreading
- Presentation Language Skills
- Technology and Language for Research



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Join the Course

EMPLOYABILITY SKILLS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of employability and workplace readiness.
- Communication etiquette, presentations, and interpersonal skills.
- Critical thinking, problem-solving, teamwork, and leadership.
- Digital literacy, workplace tools, ethics, and professional behaviour.
- Career readiness: résumé building, interviews, and workplace preparation.



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Dr. P.Jakulin Divya Mary
Assistant Professor,
NITTTR Chennai



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Join the Course

GUIDANCE AND COUNSELLING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Overview of Guidance and Counselling
- Counselling Approaches, Theories and techniques
- Ethics, Assessment, and Institutional Practices
- Common Issues and Interventions in Institutional Settings



Coordinated By
Dr. S. Renukadevi Professor,
NITTTR Chennai



Coordinated By
Er. M. Sutaarson Assistant Professor,
NITTTR Chennai



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Join the Course

INDIAN KNOWLEDGE SYSTEM

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- History of Indian Knowledge System
- India's characteristic knowledge & India's epistemology
- Ancient Scriptures
- Ancient Education System
- Scientific approaches of IKS & Torch-bearers
- Literary Aspects of IKS & Torch-bearers
- Governance in IKS & Way Forward



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Dr. Roli Pradhan
Assistant Professor, NITTTR Bhopal



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Join the Course

SOFT SKILLS FOR 21ST CENTURY LEARNERS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to soft skills, goal setting & self-awareness – Week 1
- Communication & Presentation Skills – Week 2 & 3
- Leadership and team building – Week 4 & 5
- Time management, Stress management – Week 6
- Change management – Week 7
- Emotional intelligence, Interpersonal skills – Week 8



Coordinated By
Dr. Habiba Hussain
Associate Professor, NITTTR Kolkata



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Education And Instructional Methods







Join the Course

STRATEGIC CLASSROOM MANAGEMENT

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of positive classroom culture, student engagement, and motivational strategies.
- Gamification techniques and behavior management for effective conflict resolution.
- AI tools, smart classroom practices, and technology-enhanced learning environments.
- Inclusive classroom strategies supporting diverse learner needs.
- Strategic classroom leadership and future-ready teaching frameworks.



Coordinated By
Dr. V. Vandhana Devi
Professor, NITTTR Chennai



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Join the Course

SUSTAINABLE MARKETING AND RESPONSIBLE CONSUMPTION

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of sustainability, responsible consumption frameworks, and sustainable consumer behaviour.
- Green marketing, sustainable branding, product innovation, and circular economy business models.
- Sustainable marketing mix, green communication, and identifying greenwashing practices.
- Digital sustainability, ESG reporting, governance, and social marketing policies.
- Emerging trends, future directions, and research opportunities in sustainable marketing.



Coordinated By
Dr Nithya M
Assistant Professor, NIT Calicut



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Join the Course

ADVANCED INSTRUCTIONAL METHODS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to Advanced Instructional Methods
- Small Group Methods using Creativity Techniques
- Small Group methods for higher cognitive and affective Domain
- ICT based Methods and Selection of Advanced Instructional Methods



Coordinated By
Dr. Asmita A. Khajanchee
Associate Professor, NITTTR Bhopal



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Join the Course

AI AND OPEN SOURCE TOOLS FOR TEACHING AND LEARNING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- **AI in Teaching** – Basics of AI, teaching challenges, AI adoption opportunities, and open-source tools.
- **Digital Content Tools** – Flowcharts, PPTs, AR/VR, screen recording, whiteboards, and canvas tools.
- **Classroom & Evaluation Tools** – Google Workspace, collaboration platforms, analytics, surveys, grading and assessment tools.
- **Research & Academic Tools** – Referencing, citation, plagiarism checkers, research software, R Studio, Scilab/LaTeX, simulators.
- **Responsible & Future AI** – Ethical AI use, cybersecurity, virtual labs, challenges in AI adoption, and capstone activities.



Coordinated By
Dr. Meenakshi Sood
Associate Professor,
NITTTR Chandigarh



Coordinated By
Dr Maitreyee Dutta
Professor,
NITTTR Chandigarh



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Join the Course

BASIC INSTRUCTIONAL METHODS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Overview of Learning and Instruction
- Teacher-Centred Methods
- Instructional Methods for developing Practical Outcomes
- Student Centred Interactive methods
- Selecting Instructional Methods using Logical Approach



Coordinated By
Dr. Susan S. Mathew
Associate Professor, NITTTR Bhopal



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Join the Course

CREATING AND TEACHING WITH OER: AN AI-DRIVEN APPROACH

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- OER basics, Creative Commons licensing, UNESCO and Indian initiatives.
- Discovering and attributing OER using TASL; licensing compliance.
- Localizing and remixing OER; accessibility and inclusive design.
- Four-Quadrant course planning: video, e-content, discussion, assessment; storyboarding; AI-enhanced engagement.
- Publishing, hosting, maintenance, and measuring impact with analytics for sustainability.



Coordinated By
Mr. A.P. Felix Arokiya Raj
Assistant Professor, NITTTR Chennai



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Join the Course

DIGITAL PEDAGOGY MEETS DATA: VISUALIZATION SKILLS FOR EDUCATORS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of Digital Pedagogy and AI-Enhanced Teaching
- Basics of Data Visualization and Data-Driven Insights
- Applications of Data Visualization in Educational Institutions and Classrooms
- Benefits of Visualization for Educators and Smarter Teaching Approaches
- Tools and Techniques for Creating Educational Visualizations
- Future Trends in Visual, Digital, and Data-Driven Teaching
- Integrating Visualization into Teaching Practice and Responsible Data Use
- Data-Enhanced Teaching Strategies and Professional Growth



Coordinated By
Dr. S. Sasirekha
Associate Professor, NITTTR Chennai



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3 Credits






Join the Course

E-CONTENT DEVELOPMENT

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Gen Z Learners and E-Learning
- Instructional Design Models
- Multimedia Principles and Content Authoring Tools
- Presentation Tools
- Graphics and Animation Tools
- Audio and Podcasting Tools
- Online Video Creation
- FOSS and Online Tools for Engagement



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Dr. P. Malliga
Professor, NITTTR Chennai



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Join the Course

EDUCATIONAL MEDIA

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online





Join the Course

EDUCATIONAL VIDEO PRODUCTION

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Educational Media - Need, Classification and Planning
- Design and Development of Educational Media
- Media for 21st Century Classroom and Laboratory



Coordinated By
Dr. Sandip Shivaji Kedar
Professor, NITTTR Bhopal



FREE For Learning 3 Credits

Course Layout

- Planning and Management of Script Writing, Storyboard and Video Program Production
- Lighting Techniques and Moods
- Video Camera Techniques
- Graphics and Animation Techniques
- E Content Generation Tools
- Video Editing Techniques



Coordinated By
Dr. Maitreyee Dutta
Professor, NITTTR Chandigarh



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Join the Course

FUNDAMENTALS OF OUTCOME-BASED CURRICULUM IN ENGINEERING EDUCATION

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online





Join the Course

ICT IN TEACHING AND LEARNING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to engineering curriculum: definition, significance, syllabus, and design approaches.
- Curriculum development process: basic model, factors influencing changes, and characteristics of a good curriculum.
- Curriculum planning: needs identification, designing, implementation, and evaluation.
- Outcome-Based Curriculum (OBC): philosophy and model in engineering education.
- OBC details: program structure, course presentation, and assessment design.



Coordinated By
Dr. Susan S. Mathew
Associate Professor, NITTTR Bhopal



Coordinated By
Dr. Chanchal Mehra
Assistant Professor, NITTTR Chennai



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Course Layout

- ICT Enabled Teaching and Learning
- Pedagogical Integration of Appropriate Emerging ICT strategy
- Ethical- Intellectual Property Right
- Legal Issues



Coordinated By
Dr. Ravi Kapoor
Professor, NITTTR Bhopal



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Join the Course

MENTAL HEALTH OF STUDENTS IN HIGHER EDUCATION: FOSTERING RESILIENCE AND ENHANCING WELL-BEING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Overview of Mental Health in Higher Education
- Physical and Cognitive Well Being
- Academic Stress and Time Management
- Digital Well-being
- Emotional and Social Well Being
- Resilience, Coping and Counselling for Maladaptive Behaviours
- Support Systems and Campus resources
- Culture of Well-being in Institutions



Coordinated By
Dr. S. Renukadevi
Professor, NITTTR Chennai



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Join the Course

NATURE-BASED SOLUTIONS - TRADITIONAL KNOWLEDGE AND SUSTAINABILITY

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Nature-Based Solutions: meaning, global standards, sustainability links, indigenous perspectives.
- Traditional ecological knowledge, community roles, and cultural heritage in sustainability.
- Ecosystem-based climate resilience: forests, wetlands, land use, and community adaptation.
- Traditional water, agriculture, and knowledge systems supporting conservation and NbS.
- Policies, community participation, technology integration, and future innovations in NbS.



Coordinated By
Dr. Roli Pradhan
Assistant Professor,
NITTTR Bhopal



Coordinated By
Dr Amitabh Pande
Director,
National Museum of
Humankind



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Join the Course

PRINCIPLES OF OUTCOME BASED ASSESSMENT

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to OBE: philosophy, evolution, and crafting clear learning outcomes mapped to courses and programs.
- Assessment strategies: direct/indirect methods, performance types, achievement tests, and Table of Specifications.
- Performance assessment: checklists, rating scales, holistic/analytic rubrics, and criteria preparation.
- Digital assessment tools: benefits, free/FOSS tools for formative, summative, and performance assessments.
- Portfolio assessment: e-portfolios, activity tracking, attainment measurement, and continuous quality improvement.



Coordinated By
Dr. K.S.A. Dinesh Kumar
NITTTR Chennai



Dr. V. Shanmuganeethi
NITTTR Chennai



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Join the Course

MENTORING AND COUNSELLING SKILLS FOR TEACHERS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Learners and Teachers
- Mentoring Basics
- Mentoring Stages & Areas
- Mentoring Strategies
- Counselling Basics
- Counselling Skills
- Counselling Strategies & Areas
- Self care for Teachers and Summary



Coordinated By
Dr. S. Renukadevi
Professor, NITTTR Chennai



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Join the Course

PROFESSIONAL ETHICS FOR HIGHER EDUCATION TEACHERS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Professionalism in Teaching and the Role of Higher Education Teachers
- Mentoring, counselling, and revival of the ‘Guru-Shishya’ Tradition
- Human values, harmony, and sustainable happiness
- Co-existence and collective well-being
- Professional ethics, values, and self-exploration
- Ethical dilemmas and academic code of conduct
- Role of professional societies in ensuring ethical practice



Coordinated By
Dr. Asmita A. Khajanchee
Associate Professor, NITTTR Bhopal



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For Learning

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Join the Course

TEACHING & LEARNING (TL) PRACTICES FOR PYTHON PROGRAMMING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Structured Instruction
- Introduction to Programming and Python
- Overview lectures on programming concepts and Python fundamentals
- Data Structures
- Functions and Modules
- Coding exercises to create and use functions and modules
- Importance and Principles of Data Visualization
- Explanation of data visualization concepts and libraries through lectures



Coordinated By
Dr. V. Shanmuganeethi
NITTTR Chennai



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For Learning

3 Credits





Join the Course

STUDENT PSYCHOLOGY

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Teaching Learning Process
- Student Characteristics, Types and Problems
- Psychological Tests and Inventories
- Student Motivation
- Physical and Cognitive Development
- Emotional and Social Development
- Neuro-Linguistic Programming
- Counselling Skills and Summary



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Dr. S. Renukadevi
Professor, NITTTR Chennai



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Join the Course

VIRTUAL SIMULATION TOOLS BASED INTERACTIVE TEACHING AND LEARNING STRATEGY

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Teaching Learning Process and Instructional Strategies
- Physics Education Technology (PhET)
- MATLAB & MATLAB Simulink
- MultiSIM & LabVIEW
- Virtual Labs project, an initiative of Ministry of Education (MoE), Government of India
- Tinker CAD
- Electronic design automation (EDA) Playground & ANSYS
- Augmented Reality, Virtual Reality, Mixed Reality, Extended Reality, Meta Verse, 360 degree Video simulations



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Professor, NITTTR Chennai



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Entrepreneurship and Business Management







Join the Course

3C's – CLEAN, CAPTURE AND CONVERT (APPROACH TOWARDS SUSTAINABILITY)

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Sustainability basics and the energy–environment connection.
- 3C's framework: Clean, Capture, Convert.
- Clean technologies: renewable energy, pollution control, and waste minimization.
- Carbon capture, utilization, circular carbon economy, and energy conversion systems.
- Waste-to-energy, integrated 3C applications, LCA, techno-economic analysis, policies, and future sustainability trends.



Coordinated By
Dr. M. Seenuvasan
Professor, NITTTR Chennai



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Join the Course

BLUE ECONOMY ENTREPRENEURSHIP

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of Blue Economy Entrepreneurship, SDGs, and Policy Frameworks.
- Marine Conservation, Sustainable Practices, and Innovation/Technology Applications.
- Financing, Market analysis, Business models, and Sustainable Supply Chains.
- Risk Management, Resilience, Community Engagement, and Social Impact.
- Entrepreneurial Leadership skills and Emerging Trends/opportunities in the Blue Economy.



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Dr. M. Anil Kumar
Associate Professor, NITTTR Chennai



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DATA ANALYTICS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Data Analytics - An Overview
- Clustering and Classification Techniques
- Machine Learning for Data Science
- Social Network Analysis
- Educational Data Analytics
- Performance Factors Analysis
- Data Visualization
- Learning from Multiple Representations



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Dr. Chandan Chakraborty
Professor, NITTTR Kolkata



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Join the Course

FUNDAMENTALS OF BUSINESS ANALYTICS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Covers pedagogy, adult learning theory, and evolving business analytics education.
- Focuses on active learning, real-world datasets, and tech-enhanced activities.
- Explains assessment alignment, tool design, and constructive feedback.
- Builds critical thinking, problem-solving, and data-driven reasoning.
- Includes communication, technology integration, inclusive teaching, and future-focused curriculum design.



Coordinated By
Dr. P. Jakulin Divya Mary
Assistant Professor, NITTTR Chennai



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PRODUCT POLICY AND BRAND MANAGEMENT

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Product Management Fundamentals: Strategy, Product levels, classification, differentiation, Life cycle, and New Product development stages.
- Brand Management Basics: Branding concepts, Strategies, Challenges, Brand Equity, Positioning, and Customer value.
- Building brand equity: Brand Elements, Marketing Strategies, and Brand Measurement Tools.



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Dr. Nithya M
Assistant Professor, NIT Calicut



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Join the Course

HOSPITAL AND HEALTH SYSTEMS MANAGEMENT

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Health Systems Overview
- Hospital Planning and Design
- Hospital Operations Management
- Quality Management and Patient Safety
- Human Resource Management in Healthcare
- Healthcare Finance and Budgeting
- Materials and Supply Chain Management
- Health Information Systems and Digital Health



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Dr. P. Jakulin Divya Mary
Assistant Professor, NITTTR Chennai



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Join the Course

INNOVATION DRIVEN ENTREPRENEURSHIP

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to Innovation in Entrepreneurship
- Idea Generation and Validation
- Design Thinking in Entrepreneurship
- Business Model Innovation
- Technology and Innovation
- Funding Innovation
- Entrepreneurial Mindset, Leadership & Intellectual Property
- Scaling and Growth Strategies, Sustainability & Social Innovation



Coordinated By
Dr. K. S. Giridharan
Professor, NITTTR Chennai



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Join the Course

MACHINE LEARNING TECHNIQUES FOR SOCIAL MEDIA DATA ANALYTICS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Basics of social media platforms, data types, and ML roles in analytics.
- ML foundations: classification, regression, clustering, topic modeling, and NLP.
- Applications: sentiment analysis, fake news detection, trend prediction, and influencer analysis.
- Tools: Python, Scikit-learn, NLP libraries with practical case studies.
- Ethics, privacy, and future AI trends.



Coordinated By
Dr. S.V. Kogilavani
Professor, NITTTR Chennai



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Course Layout

- Marketing fundamentals from an engineering perspective.
- Customer insights, segmentation, and market behavior.
- Value creation, product-market fit, and market research.
- QFD, cost engineering, pricing, and distribution strategy.
- Product lifecycle, strategic marketing, sustainability, and future tech trends.



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Dr. Nithya M
Assistant Professor, NIT Calicut



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Course Layout

- Introduces the shift from linear to circular economy with focus on waste valorization.
- Covers technologies, policies, and business models for waste-to-value conversion.
- Explains major waste treatment methods and resource-recovery practices.
- Encourages innovation, entrepreneurship, and national initiatives like Atmanirbhar Bharat.
- Builds interdisciplinary skills through hands-on, real-world circular-economy projects.



Coordinated By
Dr. M. Anil Kumar
Associate Professor, NITTTR Chennai



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Leadership, Policy and Accreditation

**LEADERSHIP, POLICY
AND ACCREDITATION**







Join the Course

ACADEMIC LEADERSHIP IN CROSS CULTURAL CONTEXT OF HIGHER EDUCATIONAL INSTITUTIONS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Coordinated By
Dr. E.S.M. Suresh
Professor, NITTTR Chennai

Course Layout

- Leadership Qualities
- Transformational Leadership
- Excellence through Strategic Planning
- Building world class Institutions
- Quality Assurance, Accreditation and Ranking



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Join the Course

ACCREDITATION OF UNDERGRADUATE ENGINEERING PROGRAMME – AS PER SAR 2024-25

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Coordinated By
R. K. Dixit **Sanjay Agrawal**
Professor, NITTTR, Bhopal Professor, NITTTR, Bhopal

Course Layout

- Introduction to accreditation, Outcome- Based Education, and key changes in SAR and prequalifiers.
- Vision, mission, PEOS, POS, PSOS, graduate attributes, and complex engineering problems.
- Course outcomes, curriculum structure, gap analysis, and Criterion 1 overview for Tier 1 & 2.
- Outcome-based teaching-learning, student assessment, attainment of COS/POs/ PSOs, and Criteria 2-6.
- Infrastructure, continuous improvement, student support, governance, accreditation application process, and visit challenges.



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Join the Course

NATIONAL EDUCATION POLICY AND INSTITUTIONAL BUILDING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Coordinated By
Dr. G. Janardhanan
Professor, NITTTR Chennai

Course Layout

- Understanding of NEP 2020
- Application of NEP 2020 in Institutional Contexts
- Curricular and Pedagogical Reforms
- Technology Integration and Blended Learning
- Institutional Leadership and Governance
- Research and Innovation in Education
- Assessment and Continuous Evaluation
- Monitoring and Evaluation of Institutional Development
- Ethical Considerations in Institutional Development



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Course Layout

- Introduction to Quality Assurance and Accreditation
- Curricular Aspects
- Teaching & Learning, Evaluation
- Research, Consultancy, and Extensions
- Infrastructure and Learning Resources
- Student Support and Progression
- Governance, Leadership, and Management
- Institutional Values & Best Practices



Coordinated By
Dr. E.S.M. Suresh
Professor, NITTTR Chennai

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Course Layout

- Introduction to Environmental Issues and Sustainable Development
- Green Campus Initiatives
- Renewable Energy
- Sustainable Construction and Green Building
- Health and Safety



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Professor, NITTTR Chennai

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Technical Training in Vernacular Language





Join the Course

STUDENT PSYCHOLOGY (HINDI)

20th July - 31st October 2026
 Enrollment Ends : 31st August 2026
 Mode : Online

Course Layout

- शिक्षण-अधिगम प्रक्रिया
- छात्र विशेषताएँ, प्रकार और समस्याएँ
- मनोवैज्ञानिक परीक्षण और प्रश्नावलियाँ
- छात्र अभिप्रेरणा
- शारीरिक और संज्ञानात्मक विकास
- भावनात्मक और सामाजिक विकास
- तंत्रिका-भाषाई प्रोग्रामिंग
- परामर्श कौशल और सारांश



Coordinated By
Dr. S. Renukadevi
Professor, NITTTR Chennai



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Join the Course

DIGITAL CIRCUIT DESIGN— A PRACTICAL APPROACH (HINDI LANGUAGE)

20th July - 31st October 2026
 Enrollment Ends : 31st August 2026
 Mode : Online

Course Layout

- Introduction to Digital Circuits Design
- Procedure and Designing of Combinational Logic Circuits
- Designing of Combinational Logic Circuits
- Designing of Sequential Logic Circuits



Coordinated By
Dr. Kanika Sharma
Associate Professor, NITTTR Chandigarh



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Join the Course

DIGITAL ELECTRONICS: THEORY AND PRACTICE (IN PUNJABI)

20th July - 31st October 2026
 Enrollment Ends : 31st August 2026
 Mode : Online

Course Layout

- Number Systems
- Binary Arithmetic Operations
- Logic Gates and Boolean Algebra
- Minimization of Boolean Expressions using Karnaugh Map (K-Map)
- Combinational Logic Circuits
- Sequential Circuits
- Memory Devices
- Digital to Analog (D/A) & Analog to Digital (A/D) Converters



Coordinated By
Dr. Balwinder Singh Dhaliwal
Associate Professor, NITTTR Chandigarh



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Join the Course

INDIAN KNOWLEDGE SYSTEM (HINDI)

20th July - 31st October 2026
 Enrollment Ends : 31st August 2026
 Mode : Online

Course Layout

- भारतीय ज्ञान परंपरा का इतिहास
- भारत का विशिष्ट ज्ञान और भारत का ज्ञानमीमांसा
- प्राचीन भारत के पवित्र ग्रंथ
- प्राचीन शिक्षा प्रणाली
- प्राचीन भारतीय ज्ञान परंपरा: खगोल विज्ञान, वास्तुकला, आयुर्वेद और कृषि
- प्राचीन भारत में धातुकर्म, गणित, युद्ध विज्ञान, नियुद्ध कला और पर्यावरण विज्ञान
- भारतीय ज्ञान परंपरा में भाषा, छंद, नाट्यशास्त्र और चेतना का विज्ञान
- भारतीय ज्ञान परंपरा में शासन व्यवस्था और सार्वजनिक प्रशासन



Coordinated By
Dr. Roli Pradhan
Assistant Professor, NITTTR Bhopal



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Join the Course

MOBILE AND WIRELESS COMMUNICATION (IN HINDI)

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Course Layout

- Learners and Teachers
- Mentoring Basics
- Mentoring Stages & Areas
- Mentoring Strategies
- Counselling Basics
- Counselling Skills
- Counselling Strategies & Areas
- Self care for Teachers and Summary

Coordinated By
Dr. Garima Saini
Assistant Professor, NITTTR Chandigarh



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Join the Course

PLC AND MICROCONTROLLER (INSTRUCTION MEDIUM: HINDI)

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Course Layout

- Introduction to 8051 Microcontroller
- Programming Languages of 8051
- Embedded C Programming of 8051
- 8051 Timers
- PLC
- Instruction Set of PLC
- PLC programming using Ladder Logic
- Practicals on Allen Bradley based Universal PLC Platform

Coordinated By
Dr. Ritula Thakur
Associate Professor, NITTTR Chandigarh



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Join the Course

PYTHON PROGRAMMING AND ITS APPLICATIONS IN DATA SCIENCE (IN HINDI)

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online




Course Layout

- Python basics: data types, I/O, operators, control flow, functions, modules, arrays, strings.
- Core data structures: lists, tuples, dictionaries, sets.
- File handling, exceptions, CSV/JSON processing.
- Data science essentials with NumPy, Pandas; data cleaning and transformation.
- Outlier handling, imbalance treatment, visualisation, and EDA techniques.

Coordinated By
Dr. Mala Kalra Assistant Professor, NITTTR, Chandigarh
Dr. Shano Solanki Associate Professor, NITTTR, Chandigarh



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Engineering And Technology







Join the Course

2I – (INDUSTRY INSTITUTE) COLLABORATION FOR ACADEMIC EXCELLENCE OF HEIs

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Overview of Industry-Institute Collaboration, institutional growth, sustainability, and global frameworks.
- Employability through internships, multi-skill development, industrial visits, and mentorship.
- Entrepreneurship, design thinking, startup incubation, and industry-supported infrastructure.
- Faculty development, research, consultancy, and MoU frameworks.
- Curriculum alignment with NEP 2020, credit systems, and accreditation impact.



Coordinated By
Dr. E.S.M. Suresh
Professor, NITTR Chennai



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Join the Course

4D AND 5D PRINTING FOR SUSTAINABLE MANUFACTURING PRINCIPLES, THEORY, AND PRACTICES

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Evolution from 3D to 5D printing, core principles, and sustainable manufacturing frameworks.
- Recycled thermoplastic and metallic composites — primary, secondary, and tertiary — for engineering applications.
- Extrusion, gel, and metal-based printing techniques with sensor fabrication and rapid tooling.
- Biomedical and orthopedic applications, functionally graded materials, and circular economy aspects.
- Case studies on cerclage strip sensors, medicinal monitoring, and rehabilitation devices.



Coordinated By
Dr. Rupinder Singh
Professor, NITTR Chandigarh



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Join the Course

APPLIED SIGNAL PROCESSING FOR HEALTHCARE TECHNOLOGIES

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Overview of biomedical systems, excitable cells, and fundamentals of biomedical signals.
- ECG, EEG, and EMG signals — generation, measurement, and clinical applications.
- Signal acquisition, electrode types, amplification, and noise management techniques.
- Filtering techniques — LPF, HPF, BPF, and Notch filters with MATLAB demonstrations.
- Signal analysis, feature extraction, frequency-domain methods, and healthcare case study.



Coordinated By
Dr. Yedukondala Rao Veeranki
Assistant Professor ,NIT Puducherry



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Join the Course

DIGITAL TWINS AND IOT APPLICATIONS IN CIVIL ENGINEERING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to Digital Twins in Civil Engineering
- Fundamentals of IoT Systems
- Data Acquisition and Sensor Technologies for Infrastructure
- Cloud, Edge Computing, and Data Management
- BIM–Digital Twin Integration
- 3D/4D/5D Modeling and Geospatial Integration
- Structural Health Monitoring (SHM) Systems
- Predictive Maintenance and Asset Management
- Digital Twins for Buildings and Smart Facilities
- Digital Twins for Bridges and Transportation Infrastructure
- Digital Twins for Water, Utilities, and Smart Cities
- Digital Twins in Construction Management
- Data Analytics, AI/ML for Digital Twins
- Standards, Interoperability, and Cybersecurity
- Comparative Analysis: National vs International Practices



Coordinated By
Dr. G. Janardhanan
Professor, NITTR Chennai



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Join the Course

DATA STORYTELLING & DASHBOARDS WITH POWER BI & PYTHON

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Fundamentals of data storytelling, visualization principles, and introduction to Power BI and Python.
- Data preparation, cleaning, and visualization using Pandas, Matplotlib, and Seaborn.
- Building interactive Power BI dashboards with filters, slicers, DAX, and AI visuals.
- Integrating Python with Power BI for custom visuals and automated data processing.
- Dashboard design best practices, audience-focused storytelling, and real-world case studies.



Coordinated By
Dr.T.Subha
Associate Professor, NITTTR Chennai



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Join the Course

ETHICAL AND RESPONSIBLE AI GOVERNANCE

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Foundations of AI and Responsible AI
- Ethics, Human Values, and AI
- AI Governance Frameworks and Regulations
- Building Trustworthy AI: Transparency, Explainability, and Accountability
- Privacy, Security, and AI Risk Management
- Responsible Generative AI, Large Language Models, and AI Agents
- AI Governance in Practice: Applications and Case Studies
- Building a Responsible AI Future



Coordinated By
Dr. S. Sasirekha
Associate Professor , NITTTR Chennai



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Join the Course

SMART INDUSTRIAL CONTROL USING PLC AND SCADA TECHNOLOGIES

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to industrial automation, Allen-Bradley PLC families, hardware architecture, and Studio 5000 programming environment.
- PLC programming fundamentals — ladder logic, timers, counters, data handling, and sequential control techniques.
- Advanced instructions including subroutines, sequencers, shift registers, and structured program development.
- Analog I/O, signal scaling, sensor integration, and PID control for process regulation.
- SCADA architecture, HMI design, alarm management, and PLC-SCADA integrated supervisory control.



Coordinated By
Dr G. A. Rathy
Professor, NITTTR Chennai



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Join the Course

VLSI PROCESS TECHNOLOGY

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to VLSI Technology and Basic Semiconductor Fabrication
- Thermal Oxidation and Diffusion Technology
- Ion Implantation Technology
- Lithography Technology
- Etching Technology
- Thin Film Deposition Technology
- Metallization, Packaging and Reliability
- CMOS Process Integration and Future Semiconductor Technologies



Coordinated By
Dr. D. Suresh
Assistant Professor, IIT Tiruchirappalli



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Join the Course

3D MODELLING AND RENDERING FOR VIRTUAL REALITY

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online





Join the Course

3D PRINTING AND DESIGN FOR EDUCATORS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- 3D Modeling & VR Basics
3D concepts, transformations, Blender interface, object creation.
- Viewing, Geometry & Modeling
Camera pipeline, projections, mesh editing, modifiers, topology, sculpting.
- Materials, Lighting & Rendering
PBR shaders, UV mapping, texture painting, lighting types, HDRI.
- Environment, Animation & Physics
Level design, keyframes, rigging, controllers, collisions, forces.
- AI, VR Integration & Capstone
AI logic, rendering optimization, VR setup, model import, full VR mini-project deployment.



Coordinated By
Dr. B. Yogameena
Professor, NITTTR Chennai



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For Learning **3 Credits**

Course Layout

- Additive Manufacturing Introduction and CAD
- Data Preparation for 3D Printing
- 3D Printers and Software
- 3D Printing Materials
- Solid based 3D Printing Processes
- Liquid based 3D Printing Processes
- Powder based 3D Printing Processes



Coordinated By
Dr. Sharad K. Pradhan
Professor, NITTTR Bhopal



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Join the Course

3D PRINTING OF AUXETIC STRUCTURES: THEORY AND PRACTICES

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to 3D printing
- Operational procedures and protocols, SOPs
- Polymer 3D printing
- Gel 3D printing
- Metal 3D printing
- Introduction to sensors
- Case Studies



Coordinated By
Dr. Rupinder Singh
Professor, NITTTR Chandigarh



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Join the Course

APPLICATION IN POWER ELECTRONICS ENGINEERING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Power Electronic Devices Power electronic devices-Power diodes
- Power transistor
- Phase Controlled Rectifiers Phase control
- DC-DC Converters- Non-Isolated- Buck, Boost, Buck- Boost and
- Cuk converters
- Introduction to self-commutated switches
- Multilevel inverters: diode-clamped, flying capacitor, and cascaded
- types - comparison, PWM techniques, and applications.



Coordinated By
Dr. G.A. Rathy
Professor, NITTTR Chennai



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Join the Course

AUGMENTED & VIRTUAL REALITY – FOUNDATIONS AND APPLICATIONS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Covers fundamentals, evolution, trends, and career paths in XR (AR/VR/MR).
- Introduces XR hardware, display devices, and development tools like Unity.
- Explains HCI principles—perception, navigation, gestures, and tracking.
- Includes 3D modeling basics, asset creation, and optimization.
- Teaches AR/VR development workflows, scripting basics, and building immersive experiences



Coordinated By
Dr. P. Malliga
Professor, NITTTR Chennai



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Join the Course

CLIMATE CHANGE AND DISASTER RISK MANAGEMENT

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Climate Change Basics, GHGs, Evidence, and Global/IPCC Projections
- Impacts on agriculture, water, biodiversity, health, and vulnerability studies
- Disaster types, risk assessment, and disaster-risk reduction frameworks
- Climate–disaster links: floods, droughts, heatwaves, and key global/national policies
- Adaptation, mitigation, renewable energy, community resilience, and early-warning systems



Dr. Rakesh Wats
Professor,
NITTTR Chandigarh



Coordinated By
Dr. G. Janardhanan
Professor,
NITTTR Chennai



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Join the Course

DESIGN THINKING FOR EDUCATORS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Design Thinking: Mindsets and Processes
- Empathize Phase
- Define Phase
- Ideate Phase
- Prototype Phase
- Test Phase
- Implement Phase
- Reflect Phase



Coordinated By
Dr. S. Saravana Perumaal
Associate Professor, NITTTR Chennai



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ELECTRIC VEHICLE TECHNOLOGY FOR ACADEMIA

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Electric Vehicle Components and Architecture
- Embedded Controllers for EV
- Power Electronics Converters for EV
- Electrical Motors for EV
- Battery Management Systems (BMS) for EV
- Modelling and Simulation of EV
- Electric Vehicle Charging
- Advanced Driver Assistant Systems and Electric Vehicle Standards



Dr. G.A. Rathy
Professor,
NITTTR Chennai



Coordinated By
Dr. R. Suja Mani Malar
Associate Professor,
NITTTR Chennai



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ENVIRONMENTAL SCIENCE AND ENGINEERING

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online




Course Layout

- Basics of environmental science, resources, ecosystems, and biodiversity.
- Air, water, soil, noise, thermal, and marine pollution.
- Climate change, global issues, and sustainability.
- Waste management, biotechnology, EIA, and policies.
- EMS, green technologies, and future environmental trends.

Coordinated By

Dr. M. Anil Kumar

Associate Professor,
NITTTR Chennai

Dr. M. Seenivasan

Professor,
NITTTR Chennai



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INTEGRATION OF ARTIFICIAL INTELLIGENCE IN EDUCATIONAL PRACTICES

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online




Course Layout

- Introduction to Artificial Intelligence in Education
- Enhancing Teaching and Pedagogical Practices with AI
- AI-Driven Student Engagement and Motivation
- Adaptive Learning and Personalized Education
- Transforming Assessment with AI
- Learning Analytics and Insights
- Collaboration and Communication with AI
- Challenges and Future Prospects

Coordinated By

Dr. V. Shanmuganeethi

NITTTR Chennai

Dr. S. Sasirekha

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INTERNET OF THINGS: DESIGN CONCEPTS AND USE CASES

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Course Layout

- Introduction to IoT
- Communication Protocols in IoT with Implementation using Contiki OS
- Arduino Basics
- Practical Interfacing with Arduino:
- Sensor interfacing: LCD, DHT11, Gas and Water Level Sensors with Arduino, soil moisture, IR, sound, and flame sensors with Arduino
- Case Study

Coordinated By

Dr. Maitreyee Dutta

Professor, NITTTR Chandigarh



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LINUX APPLICATIONS IN ENGINEERING EDUCATION

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online



Course Layout

- Introduction to Linux OS and its Applications in Engineering
- Linux File System, Basic Commands, and Permissions
- Process Management, Scheduling (cron, at), and Monitoring
- Networking Essentials and Remote Access (SSH, SCP)
- Shell Scripting for Automation in Engineering Tasks
- Server Setup for Engineering Labs (FTP, Web, Samba)

Coordinated By

Dr. Amit Doegar

Associate Professor,
NITTTR Chandigarh



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Join the Course

OPERATION AND MAINTENANCE PRACTICES FOR SMALL HYDRO POWER PLANTS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction to Small Hydropower and basic plant operation.
- Civil structures and their maintenance.
- Hydro-mechanical equipment, turbines, and governing systems.
- Electrical components, controls, instrumentation, and monitoring.
- SHP operation practices, maintenance, and safety procedures.



Coordinated By
Dr. Sharad K. Pradhan
Professor, NITTTR Bhopal



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Join the Course

UAV IN ENGINEERING APPLICATIONS

20th July - 31st October 2026
Enrollment Ends : 31st August 2026
Mode : Online

Course Layout

- Introduction, Classifications, Applications and Payloads of UAV
- Aerodynamics and Computational Fluid Dynamic Analysis of UAV
- Design, Assembly, Integration and Testing of Quadcopter
- Industrial and Engineering Applications of UAVS
- Development of Amphibious UAV for water quality monitoring
- SWARM of UAVs for 3D Mapping using Stereo vision system
- Development of Flapping Wing Vehicle (FWV)
- DGCA Rules, Regulation and Future Engineering Application of UAVs



Coordinated By
Dr. E. Balasubramanian
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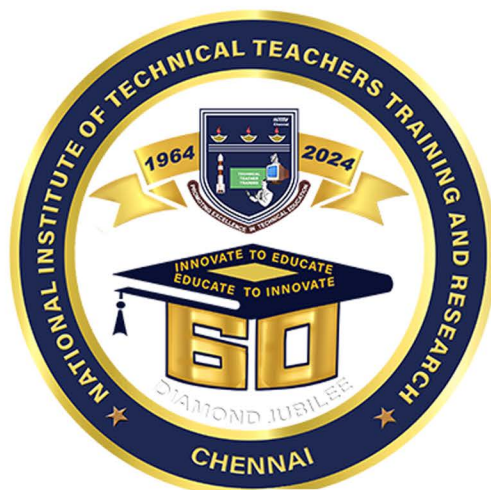
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