Two Weeks Online Certificate Programme on

5G Design:
Journey from Devices to Circuits

March 01st – 12th, 2021

Seamless Learning Opportunities
At
Electronics and ICT Academy
An Initiative and Sponsored by
Ministry of Electronics and Information Technology (MeitY)
Government of India

Organized by
PDPM
Indian Institute of Information Technology,
Design and Manufacturing
Jabalpur

in association with
University College of Engineering
BIT Campus, Anna University
Tiruchirappalli

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ABOUT UCE, BIT CAMPUS, ANNA UNIVERSITY, TRICHY

University College of Engineering, BIT Campus, Anna University, Tiruchirappalli is a technical university department of Anna University. The Vision of the Institute is to transform students into competent professional and responsible citizen by focusing on assimilation, analysis, synthesis and dissemination of knowledge to meet the societal needs. It offers higher education in Engineering, Technology, Management and allied sciences at undergraduate, postgraduate and doctorate level. The main campus is situated in the southern part of Tiruchirappalli and extends over 354 acres (1.43 km²).

ABOUT ELECTRONICS & ICT ACADEMY AT PDPM IIITDM JABALPUR

The Ministry of Electronics and Information Technology, Government of India, has instituted seven Electronics and ICT Academies with one academy at PDPM IIITDM Jabalpur. The primary objective of the Academy is to prepare manpower for two important missions - 'Digital India' and 'Make in India'. The Academy aims at scalable training programmes in niche areas of Electronics and ICT for the development of required knowledge base, skills, and tools to unleash the talent of the Indian population. In addition to the faculty development programmes on fundamental and advanced topics, the Academy conducts customized training programmes for the corporate sector and research promotion workshops in emerging areas. The Academy is envisioned to become a central hub of activities on training, research, consultancy work, and entrepreneurship programmes.

ABOUT PDPM IIITDM JABALPUR

PDPM IIITDM Jabalpur was established in 2005 with a focus on education and research in IT-enabled Design and Manufacturing. Since its inception, PDPM IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution in India's mission of inclusive and sustainable growth. The Institute offers undergraduate, postgraduate and Ph.D programmes in Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Design and Ph.D programmes in Mathematics, Physics and Literature. Under IIIT act, the Institute has been declared as an Institute of National Importance in January 2015. The Institute campus is being developed on 250 acres of land close to Dumna Airport, Jabalpur. The Institute is 10 km from the main railway station and 5.5 km from Dumna Airport, Jabalpur.

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How to apply:

Registration Link : https://bit.ly/3dwxjIn

Course Fee Details : Academic (Student/Faculty) : 500 INR
Industry People : 1000 INR
Others: 1000 INR

Online Payment Details : Name : "IIITDMJ-E&ICT ACADEMY"
Bank Name : Allahabad Bank \Indian Bank
A/C No. : 50302042708
IFSC Code : ALLA0212433
Branch Name: Mehgawan, IIITDM Branch
(Allahabad bank is merged with Indian Bank from April 1, 2020)

COURSE CONTENTS

Introduction and Tools Overview: Introduction: Basics of RF Communication; Setup of Scikit-RF

RF ASIC Concepts 1: Two port Networks, Stability, Equivalent Device Models, Impedance Matching, Biasing

Device: Semiconductor general basics and requirements, Exploration in Si MOSFET, GaN HEMT

Modelling: Basic of Device Modelling, Passive and Active Model, Hands on Modelling of passive component using Scikit-RF

RF Simulations: Hands of tutorial for Doing Impedance Matching using Scikit-RF


Power Amplifier Design: Basics of PA, different classes, performance matrix, design of one topology for 5G , Flow of MMIC design using ADS

Measurement: Loadpull measurement, DC-IV, S parameter and power measurement