

## Implementation of NEP-2020 in SMU (AY 2021-22)

### A. Sikkim Manipal Institute of Technology (SMIT)

#### ➤ New Academic Programs-

#### B. Tech in Artificial Intelligence & Data Science (AICTE approved)

#### ➤ Flexible Curriculum- Minor Specialisation in undergraduate Engineering Courses

#### Civil Engineering (list of Minor Specializations)

- ✓ Natural Hazard and Disaster Management
- ✓ Earthquake Resistant Structures

#### Computer Science & Engineering (list of Minor Specializations)

- ✓ Data Science
- ✓ Artificial Intelligence
- ✓ Internet of Things
- ✓ Cyber Physical System

#### Electronics & Communication Engineering (list of Minor Specializations)

- ✓ VLSI & Nanotechnology
- ✓ Internet of Things (IOT)
- ✓ Signal Processing

#### Electrical & Electronics Engineering (list of Minor Specializations)

- ✓ Electric Drive Vehicle Engineering
- ✓ Power and Energy System

#### Information Technology (list of Minor Specializations)

- ✓ Artificial Intelligence
- ✓ Cloud Computing
- ✓ Cyber Security
- ✓ Management Information Systems (MIS)

#### Mechanical Engineering (list of Minor Specializations)

- ✓ Automotive Engineering
- ✓ Robotics & Automation
- ✓ Machine Design

➤ **Certificate Courses (20-24 hrs duration each) Management Department, SMIT- AY-2021-22**

- ✓ **Stress Management**
- ✓ **Communication Skills for Managers**
- ✓ **Data Analysis Using Excel**

➤ **Multidisciplinary Value Added Curriculum (B. Tech VII Semester)**

<b>Department of Civil Engineering</b>		<b>Department of Computer Science and Engineering</b>	
01.	Fundamentals of Remote Sensing and GIS	01.	Enterprise Resource Planning
		02.	Microprocessors and Peripheral Devices Communication Techniques
		03.	Internet, Technology and Society
		04.	Principle of Programming Languages
		05.	Big Data
		06.	Optimization Technique
		07.	History of Science
		08.	Intellectual Property Rights
<b>Department of Electronics and Communication Engineering</b>		<b>Department of Electrical and Electronics Engineering</b>	
01.	Industrial IoT and Industry 4.0	01.	Wave Guides and Antenna
02.	Automation and Robotics	02.	Real Time Embedded System
03.	MEMS and NEMS Devices	03.	Fuzzy Logic and Evolutionary Algorithms
04.	Nano Electronics	04.	Machine Learning
<b>Department of Information Technology</b>		<b>Department of Mechanical Engineering</b>	
01.	Mobile Ad-hoc Networks	01.	Personnel Management and Industrial Relations
02.	Geographical Information Systems	02.	Finite Element Method, Renewable Energy
03.	Mobile Computing & Communication	03.	Decision Making Techniques
04.	Real Time Systems		
05.	Introduction to E-Governance		
<b>Department of Mathematics</b>		<b>Department of Chemistry</b>	
01.	Graph theory & Applications	01.	Non-Renewable and Renewable Energy Sources and their Environmental Impact
02.	Optimization Techniques	02.	Environmental Management
03.	Wavelet Analysis and its Applications		
<b>Department of Management Studies</b>		<b>Department of Centre for Material Science and Nano Technology</b>	
01.	Entrepreneurship for Engineers (In collaboration with AIC)	01.	Introduction to Quantum and Nano Electronics

## **B. Sikkim Manipal Institute of Medical Sciences (SMIMS), SMU**

- Certificate Course on Yoga (06 months) by Department of Physiology, SMIMS
- Certificate Course on basic Neurotrauma, 06 months, SMIMS

### **Paramedical courses-**

- B. Sc. in Medical Laboratory Technology
- B. Sc. in Medical Radiology and Image Technology
- B. Sc. in Operation Theatre Technology
- Diploma in Cardiac Cath Lab Technology
- Diploma in Cardiac Technology (Non –Invasive)
- Diploma in Critical Care Technology
- Diploma in Medical Record Management

## **C. DEPARTMENT OF MEDICAL BIOTECHNOLOGY, SMIMS, SMU**

- Certificate Course in Medical Biotechnology (1 - Y)
- Diploma Course in [Medical Biotechnology (2 – Y)
- **Value added Courses**
  - (i) Instrumentation
  - (ii) Research Methodology

## **D. DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES, SMU**

### **Certificate courses (06 months)**

- (i) National Stock Exchange Academy Certified Capital Market Professionals (NCCMP) in collaboration with NSE Academy.
- (ii) Industry readiness program on capital Market in collaboration with NSE Academy.
- Introduction of Behavioural Management as Audit Course for UG & PG students (H&SS)