Date: 29/06/2020

NOTIFICATION for B.Tech/M.Tech CSE and IT (Second, Third, and Fourth Year) students

Subject**: Value Added Programs (July-Dec 2020) through NPTEL & COURSERA – The Digital Learning series (Massive Open Online Courses - Free of Cost*)**

The Department of CSE and IT, School of Engineering, MIT Art Design and Technology, University in association with NPTEL Domain Certification and Coursera on the various topics mentioned below.

The students are advised to take a **compulsory 1 course each from NPTEL and Coursera** from the suggested list from annexure 1 and complete the certification. The Online Course Learning will be considered as the **Value Added Program** for this semester (July-Dec 2020) due to the unfortunate COVID19 Pandemic and is **compulsory to all**.

Important dates to remember:

Coursera Enrollment Open - Ongoing
Coursera Registration Close- 30th June 2020
NPTEL Course Enrollment and Registration details are available as under:

The start / end dates and exam dates are as follows:

Duration	4 weeks	8 weeks	12 weeks	4 weeks	8 weeks
Start of course	20-Jul'20	20-Jul'20	20-Jul'20	17-Aug'20	17-Aug'20
End of course	14-Aug'20	11-Sept'20	09-Oct'20	11-Sept'20	09-Oct'20
Exam dates	27 Sept., 2020 (2 Sessions: 9am-12 noon; 2pm-5pm)		17 & 18 October, 2020 (2 Sessions: 9am-12 noon; 2pm-5pm)		

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Annexure-1

The following courses are recommended for SY/TY/Final Year/M.Tech. FY/ M. Tech. SY/ CSE & IT branch students but not limited to with respect to satisfaction of following conditions.

Kindly follow the below conditions before you register to Value Added Courses (VAP), Bridge courses, and Blended Learning.

1. **Value Added Courses (VAP)-- (at least one from each)**
   a. **Students can choose unique courses from NPTEL & Coursera, having a similarity index is less than 30% and are not part of the curriculum of any semester of B. Tech./M.Tech program.**
2. **Conditions for Bridge Courses (BC)-- (optional)**
   a. **Prerequisites courses for current semester subjects.**
3. **Conditions for Blended Learning (BL)--(Optional)**
   a. **Students can choose courses from NPTEL and Coursera similar to the current semester courses.**

A. List of NPTEL Courses (but not limited to)

Sr. No.	Suggested NPTEL Courses	Course Category (VAP/BC/BL)	Target Audience (CSE&IT)
1	Discrete Mathematics Programming aspects	Blended Learning	SY
2	The Joy of Computing using Python	Bridge Course	SY
3	Database Management System	Blended Learning	SY & TY
4	Demystifying Networking	Bridge Course	SY
5	Data Structures and Algorithms using Java/Python	Blended Learning	SY
6	Introduction to Programming in C/C++	Bridge Course	SY
7	Big Data Computing	Blended Learning	Final Year/M.Tech
8	Introduction to Blockchain Technology and Applications	Blended Learning	Final Year/M. Tech.
9	Blockchain Architecture Design and Use Cases	Blended Learning	Final Year/M. Tech.
10	Deep learning for computer vision	VAP	Final Year

11	Artificial intelligence and search methods for problem solving	Blended Learning	TY
12	Ethical Hacking	VAP	SY/TY/Final Year
13	Programming Data Structures and Algorithms using Python	VAP	SY
14	Google Cloud Computing Foundations	VAP	SY/TY/Final Year
15	Software Testing	VAP	TY/Final Year
16	Practical Machine Learning with Tensorflow**	VAP	TY/Final Year

** - Only for CSE students

B. List of Coursera Courses (but not limited to)

Sr. No.	Suggested Coursera Course	Course Type	Target Audience (CSE/IT)
1	Introduction to Discrete Mathematics for Computer Science Specialization	Blended Learning	SY
2	Crash Course on Python	Bridge Course	SY
3	Using Databases with Python	Bridge Course	SY
4	Cryptography I	VAP	TY IS & Core and IT
5	Introduction to Cyber Attacks	VAP	SY/TY
6	Operating Systems and You: Becoming a Power User**	VAP	TY/Final Year
7	Big Data Analysis: Hive, Spark SQL, DataFrames and GraphFrames	Blended Learning	TY/Final Year
8	Introduction to Blockchain Specialization	Blended Learning	Final Year/M.Tech
9	Data Structures and Algorithms specialization	Blended Learning	SY
10	Data Mining	VAP	Final Year
11	What is the "mind" and what is artificial intelligence ?	Blended Learning	TY
12	Applied Cryptography Specialization by University of Colorado System	VAP	TY/Final Year
13	Web Design for Everybody : Basics of Web Development and Coding	VAP	SY
14	Front-End JavaScript Frameworks	VAP	SY
15	Google Cloud Platform Big Data and Machine Learning Fundamentals	VAP	Final Year

16	Cloud Architecture with Google Cloud	VAP	TY/FInal Year
17	Neural Networks and Deep Learning	Blended Learning	TY/Final Year

** - Only for CSE students

C. List of NASSCOM Courses (but not limited to)

Sr. No.	Suggested Coursera Course	Course Type	Target Audience (CSE/IT)
1	Machine learning with Python by IBM	VAP	TY
2	Machine Learning - Linear Regression by Analytica Treasure Hunt	VAP	TY

Note: Google form link will be shared soon for data collection.

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