

**APJ Abdul Kalam Technological University
Thiruvananthapuram**

Abstract

APJAKTU - Additional list of 97 Massive Open Online Courses (MOOC) - Approved - Orders issued - Reg

ACADEMIC SECTION

U.O.No. 424/2021/KTU

Thiruvananthapuram, Dated: 08.03.2021

- Read:-*1. U.O. No. 419/2019/KTU Dated 24.10.2019.
2. U.O. No. 1229/2020/KTU Dated 03.09.2020.
3. U.O. No. 1243/2020/KTU Dated 08/09/2020.
4. Recommended list of MOOC Courses, forwarded by different Board of Studies/
Curriculum Committees, after verifying the syllabus and duration of the courses.

ORDER

Vide Order read as reference (1) above, 47 Massive Open Online Courses (MOOC), vide Order read as (2) above, 172 numbers of MOOC, and vide Order read as (3) above, 8 numbers of MOOC courses offered by reputed Institutions / Organisations, that can be registered by the students of B.Tech (Honours) Programme to earn credits, were approved by the University.

Vide paper read (4) above, various Board of Studies/Curriculum Committees, after verifying the syllabus and duration of the courses, has recommended to approve a list of **97 MOOC courses**, in addition to the existing approved list of 227 MOOC courses read above.

Sanction has been accorded by the Vice Chancellor for the approval of the additional list of **97 NPTEL MOOC Courses** offered by reputed Institutions/Organisations that can be registered by the students of B.Tech (Honours) 2015/2019 regulations to earn credits. The approval is subject to reporting and ratification of the same in the Academic Council. The list of courses are also attached herewith.

Orders are issued accordingly.

Sd/-

Dr. Sadiq A. *
Dean (Academic)

Copy to:-

1. Principals of all affiliated colleges.
2. JD(IT), to be published in the website and s/w updation.
3. PS to VC / PVC, CE, Dean(Acad).
4. SF / FC

Forwarded / By Order

Section Officer



* This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.



SL. No	Course	Code	Course Type	Duration	Offering Platform	B.Tech Regulation	Course Institution
MECHANICAL ENGINEERING							
1	Fundamentals of Combustion	OCME47	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
2	Rocket Propulsion	OCME48	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
MECHANICAL PRODUCTION ENGINEERING							
1	Fundamentals of artificial intelligence	OCMP01	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITG
2	Management of Inventory systems	OCMP02	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
3	Product Design and Manufacturing	OCMP03	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITK
4	Six Sigma	OCMP04	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
5	Operations and Supply Chain Management	OCMP05	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITM
6	Quality design and control	OCMP06	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
7	Advanced Green Manufacturing Systems	OCMP07	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITK
INDUSTRIAL ENGINEERING							
1	Industrial Safety Engineering	OCIE01	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
2	Six Sigma	OCIE02	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
3	Decision Support System	OCIE03	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
4	E-Business	OCIE04	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
5	Entrepreneurship	OCIE05	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITM
6	Virtual Reality Engineering	OCIE06	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITM
7	Introduction to Industry 4.0 and Industrial Internet of Things	OCIE07	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITKGP
8	Learning Analytics Tools	OCIE08	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITB
9	Marketing Analytics	OCIE09	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
10	Advanced Green Manufacturing Systems	OCIE10	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IITK
PRODUCTION ENGINEERING							
1	Fundamentals of Artificial Intelligence	OCPE01	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Guwahati
2	Operations And Supply Chain Management	OCPE02	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
3	Management of Inventory Systems	OCPE03	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
4	Advanced Green Manufacturing Systems	OCPE04	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
5	Six Sigma	OCPE05	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
6	Product Design And Manufacturing	OCPE06	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
7	Introduction to Internet of Things	OCPE07	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
8	Introduction to Industry 4.0 and Industrial Internet of Things	OCPE08	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
9	Introduction to Machine Learning	OCPE09	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
10	Machine Learning for Engineering and Science Applications	OCPE10	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
11	Data Analytics with Python	OCPE11	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Roorkee
12	Business Analytics And Data Mining Modeling using R	OCPE12	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Roorkee
13	Rapid manufacturing	OCPE13	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
14	Introduction to composites	OCPE14	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
INFORMATION AND TECHNOLOGY							
1	Artificial Intelligence- Knowledge representation and reasoning	OCIT01	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
2	Computational Complexity Theory	OCIT02	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
	Computational Geometry	OCIT03	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Delhi



4	Computer Vision and Image Processing- fundamentals and applications	OCIT04	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Guwahati
5	Cryptography and Network Security	OCIT05	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
6	Data Analytics with Python	OCIT06	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Rourkee
7	Deep Learning- IITKGP	OCIT07	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
8	Deep Learning - IITRopar	OCIT08	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Ropar
9	Foundation of Cryptography	OCIT09	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Bangalore
10	GPU Architecture and Programming	OCIT10	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
11	Randomized methods in complexity	OCIT11	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
12	Reinforcement Learning	OCIT12	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
13	Machine Learning for Engineering and Science Applications	OCIT13	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
14	Blockchain Architecture Design and Use Cases	OCIT14	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
15	Developing Android Apps with App Inventor	OCIT15	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	HKUST (Coursera)
16	Programming in Java	OCIT16	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
17	Deep Learning For Visual Computing	OCIT17	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
18	Virtual Reality Engineering	OCIT18	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
19	Business analysis and data mining Modeling using R	OCIT19	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Rourkee
20	Introduction to Information Theory, Coding and Cryptography	OCIT20	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Delhi
21	Artificial Intelligence Search Methods For Problem Solving	OCIT21	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras
22	Web Based Technologies and Multimedia Applications	OCIT22	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IGNOU
23	Web content management	OCIT23	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IGNOU
24	Essentials of Data Science With R Software - 1: Probability and Statistical Inference	OCIT24	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
25	Essentials of Data Science With R Software - 2: Sampling Theory and Linear Regression Analysis	OCIT25	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kanpur
26	Information Security and cyber forensics	OCIT26	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	Devi Ahilya Vishwavidyalaya,
27	Introduction to Industry 4.0 and Industrial Internet of Things	OCIT27	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
28	Basics of High Performance Computing	OCIT28	MOOC	14 weeks	HPC Shiksha-	B.Tech Regulation 2015	IIT Goa

ELECTRICAL AND ELECTRONICS ENGINEERING

1	Architectural Design of Digital Integrated Circuits	OCEE98	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
2	Computer Architecture	OCEE99	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITD
3	Computer Networks and Internet Protocol	OCEE100	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
4	Computer Vision and Image Processing - Fundamentals and Applications	OCEE101	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITG
5	Data Analytics with Python	OCEE102	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITR
6	Digital Electronic Circuits	OCEE103	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
7	Digital IC Design	OCEE104	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
8	Digital Signal Processing and its Applications	OCEE105	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITB
9	Digital System Design	OCEE106	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT Ropar
10	Elements of Solar Energy Conversion	OCEE107	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITK
11	Embedded Systems Design	OCEE108	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
12	Fundamental of Power Electronics	OCEE109	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IISc
	Fundamentals of semiconductor devices	OCEE110	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IISc
	Introduction to Time - Varying Electrical Networks	OCEE111	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM



15	Microprocessors and Interfacing	OCEE112	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITG
16	Microprocessors and Microcontrollers	OCEE113	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
17	Non-Conventional Energy Resources	OCEE114	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
18	Nonlinear System Analysis	OCEE115	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
19	Power Management Integrated Circuits	OCEE116	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
20	Power System Dynamics, Control and Monitoring	OCEE117	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
21	Power System Engineering	OCEE118	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
22	Principles of Digital Communications	OCEE119	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITD
23	Principles of Signals and Systems	OCEE120	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITK
24	Reinforcement Learning	OCEE121	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
25	Robotics: Basics and Selected Advanced Concepts	OCEE122	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IISc
26	Transmission lines and electromagnetic waves	OCEE123	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
27	Photonic integrated circuit	OCEE124	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IISc
28	High Power Multilevel Converters - Analysis, design and operational issues	OCEE125	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITD
29	Patent Law for Engineers and Scientists	OCEE126	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
30	Virtual Reality Engineering	OCEE127	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITM
31	Six Sigma	OCEE128	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
32	E-Business	OCEE129	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
33	Programming in Java	OCEE130	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IIT KGP
34	Advanced Power Electronics and Control	OCEE131	MOOC	12 Weeks	NPTEL	B.Tech Regulation 2015	IITR
35	Cryptography and Network Security	OCEE132	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Kharagpur
36	Foundations to Computer systems Design	OCEE133	MOOC	12 weeks	NPTEL	B.Tech Regulation 2015	IIT Madras

