

APJ Abdul Kalam Technological University
Thiruvananthapuram

Abstract

APJAKTU-Academics-List of Approved MOOC Courses for B.Tech Minor in Engineering (B.Tech 2019 Regulations)-
Orders issued-Reg.

ACADEMIC SECTION

U.O.No. 143/2022/KTU

Thiruvananthapuram, Dated: 25.01.2022

*Read:-*1. Rule R.11.5 of B.Tech 2019 Regulations.

2. U.O.No.1988/2021/KTU Dated: 27.11.2021

3. U.O.No.2009/2021/KTU Dated 01.12.2021

4. U.O.No.2034/2021/KTU Dated 04.12.2021

5. U.O.No.2097/2021/KTU Dated 15.12.2021

6. List of Minor MOOC Courses recommended by the various Board of Studies

ORDER

Vide paper read as (1) above, students registering for the B. Tech Degree with **Minor** programme can earn 8 credits by undergoing 2 Massive Open Online Courses (MOOC) relevant to the concerned subjects in the respective minor basket offered by agencies namely AICTE/ NPTEL/ SWAYAM/ NITTTR with the recommendation by the Board of studies and approval of the Academic Council.

Vide University Orders read as (2) to (5) above, 231 nos. of MOOCs that can be registered by the students of B.Tech (2019 Scheme), to earn credits for **Minor** Programme, were approved.

Vide paper read as (6) above, Various Board of Studies, after verifying the syllabus content and duration of the courses, has recommended to approve **25 Massive Online Open Courses**.

Considering the urgency, sanction has been accorded by the Vice Chancellor to approve the list of 25 MOOC Courses offered by agencies namely AICTE/ NPTEL/ SWAYAM/ NITTTR that can be registered by the students of **B.Tech Minor in Engineering** Programme to earn credits, as appended herewith (*refer attachment*), subject to reporting and ratification of the matter in the Academic Council .

Students will not be permitted to register for MOOCs other than those approved and published by the University, to earn credits for their Minor.

Orders are issued accordingly.

Sd/-

Dr. Sadiq A. *
Dean (Academic)

Copy to:-

1. All affiliated Institutions.
2. IT(section) for updating s/w and to publish in the website.
3. PS to VC & PVC, Dean (Acad)
4. JR(Acad) / JD(Acad) / Section
- 5.. 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.



List of Approved MOOC Courses for B.Tech Minor in Engineering

CIVIL ENGINEERING

SL. No	Course	Course Code	Course Type	Duration	Offering Platform	B.Tech Regulation	Course Institution	Remarks
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BASKET I - STRUCTURAL ENGINEERING & CONSTRUCTION TECHNOLOGY

1	Basic construction materials	CEM108	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITM	
2	Structural Analysis-I	CEM109	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITKGP	
3	Introduction to Accounting and Finance for Civil Engineers	CEM110	MINOR MOOC	8 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITK	

BASKET II - GEOTECHNICAL & TRANSPORTATION ENGINEERING

1	Geology and Soil Mechanics	CEM200	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITK	
2	Geotechnical Engineering - 1	CEM201	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITB	
3	Traffic Engineering	CEM202	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITKGP	
4	Urban Transportation Systems Planning	CEM203	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITKGP	
5	Geotechnical Engineering II Foundation Engineering	CEM204	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITKGP	

BASKET-III ENVIRONMENTAL ENGINEERING & SUSTAINABILITY

1	Remote Sensing Essentials	CEM300	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITR	
2	Remote Sensing: Principles and Applications	CEM301	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITB	
3	Geographic Information Systems	CEM302	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITR	
4	Natural Hazards	CEM303	MINOR MOOC	8 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITK	

5	Introduction to Environmental Engineering and Science - Fundamental and Sustainability Concepts	CEM304	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITKGP	
6	Environmental Quality Monitoring & Analysis	CEM305	MINOR MOOC	12 Weeks	NPTEL /SWAYAM	B.Tech Regulation 2019	IITM	

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COMPUTER SCIENCE & ENGINEERING

SL. No	Course	Course Code	Course Type	Duration	Offering Platform	B.Tech Regulation	Course Institution	Remarks
BASKET II MACHINE LEARNING								
1	Deep Learning	CSM202	MINOR MOOC	12 WEEKS	NPTEL	B.Tech Regulation 2019	IIT KGP	Replacing CST 384 CONCEPTS IN DEEP LEARNING offered in semester 6.
2	Deep Learning	CSM203	MINOR MOOC	12 WEEKS	NPTEL	B.Tech Regulation 2019	IIT Roopar	Replacing CST 384 CONCEPTS IN DEEP LEARNING offered in semester 6.
3	Essential Mathematics for machine learning	CSM204	MINOR MOOC	12 WEEKS	NPTEL	B.Tech Regulation 2019	IIT Roopar	Replacing the course CST 284 MATHEMATICS FOR MACHINE LEARNING offered in semester 4.

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ELECTRICAL AND ELECTRONICS ENGINEERING

SL. No	Course	Course Code	Course Type	Duration	Offering Platform	B.Tech Regulation	Course Institution	Remarks
BASKET II - POWER ENGINEERING								
1	Power System Protection And Switchgear	EEM210	MINOR MOOC	8 weeks	NPTEL	B.Tech Regulation 2019	IIT Roorkee	
2	Power System Protection	EEM211	MINOR MOOC	12 weeks	NPTEL	B.Tech Regulation 2019	IITKGP	
3	Power System Engineering	EEM212	MINOR MOOC	12 weeks	NPTEL	B.Tech Regulation 2019	IITKGP	
4	Power Quality Improvement Technique	EEM213	MINOR MOOC	8 Weeks	NPTEL	B.Tech Regulation 2019	IIT Roorkee	
5	Advances in UHV Transmission and Distribution	EEM214	MINOR MOOC	8 weeks	NPTEL	B.Tech Regulation 2019	IISc B	
6	Power Quality	EEM215	MINOR MOOC	12 weeks	NPTEL	B.Tech Regulation 2019	IITD	
7	Design Of Photovoltaic Systems	EEM216	MINOR MOOC	13 weeks	NPTEL	B.Tech Regulation 2019	IISc B	
8	Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems-	EEM217	MINOR MOOC	8 weeks	NPTEL	B.Tech Regulation 2019	IIT Guwahati-	

