

# Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly known as West Bengal University of Technology)

# Recommended MOOCs courses for attaining the Honours for AICTE UG programmes.

(Coordinator, MOOCs, MAKAUT, WB)

Note: MOOCs for the Credit Transfer and MOOCs for attainment of the Honours are two separate recommendations.

List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

# MOOC for First Year AICTE Programmes (Affiliated Colleges) ODD SEM 2020

Module	Course	Provider	Duration	Credits	Name of University / Institute	Status
Ethics	Ethics in Engineering Practice	NPTEL	8weeks	3	IIT Kharagpur	Active
	A Life of Happiness and Fulfilment	Coursera	6 weeks	2	Indian School of Business	Active
	Introduction to Philosophy	Coursera	5 weeks	1	University of Edinburgh	Active
	Ethical Leadership Through Giving Voice	Coursera	4 weeks	2	University of Virginia	Active
Soft Skills	Technical English for engineers	NPTEL	8 Weeks	3	IIT Madras	Active
	Body Language: Key to Professional Success	NPTEL	4 Weeks	1	IIT Ropar	Active
	Psychology at Work	Coursera	6 weeks	2	University of Western Australia	Active
	Communication in the 21st Century Workplace	Coursera	4 weeks	1	University of California	Active
	Successful Career Development	Coursera	7 weeks	2	University System of Georgia	Active
	Working in Teams: A Practical Guide	edX	4 weeks	1	University of Queensland	Active
	Communication theory: bridging academia and practice	Coursera	9 weeks	3	Higher School of Economic s	Active

		e for Odd	Semester	01 2020	-21	
	Write Professional Emails in English	Coursera	5 weeks	2	Georgia Institute of Technology	Active
	Technical Writing	Coursera	5 weeks	1	Moscow Institute of Physics and Technology	Active
	Interpersonal Communication for Engineering Leaders	Coursera	4 weeks	1	Rice University	Active
Programming Skills	Introduction to Programming with MATLAB	Coursera	9 weeks	3	Vanderbilt University	Active
	Programming In C++	NPTEL	8 weeks	3	IIT Kharagpur	Active
	Learn to Program: The Fundamentals	Coursera	7 weeks	2	University of Toronto	Active
	Introduction to computer Science	Edx	4-5 weeks	2	Microsoft	Active
	Introduction to Computer Science and Programming Using Python	Edx	Self Paced	4	MIT, USA	Active
	Statistics and R	edX	Self Paced	4	Harvard University	Active
	Introduction to Programming in C	Coursera	4 weeks	4	Duke University	Active
	Java Programming: Solving Problems with Software	Coursera	4 weeks	4	Duke University	Active
	Responsive Website Basics: Code with HTML, CSS, and JavaScript	Coursera	4 weeks	1	University of London Microsoft	Active

				01 2020-		
	Introduction to HTML5	Coursera	3 weeks	1	University of Michigan	Active
	HTML5 Coding Essentials and Best Practices		6 weeks	2	W3C	Active
	Problem solving through Programming In C	NPTEL	12 Weeks	4	IIT Kharagpur	Active
	Joy of computing using Python	NPTEL	12 Weeks	4	IIT Ropar	Active
	Programming, Data Structures and Algorithm Using Python	NPTEL	8 Weeks	3	СМІ	Active
	Foundation of Data Structures	edX	6 weeks	2	IIT Bombay	Active
	Learn to Program: The Fundamentals	Coursera	7 weeks	3	University of Toronto	Active
	Web Design for Everybody (Basics of Web Development and Coding) Specialization	Coursera	15weeks	4	University of Michigan	Active
	Programming Basics	edX	9 weeks	3	IIT Bombay	Active
Statistics	Inferential Statistics	Coursera	7 weeks	2	University of Amsterdam	Active
	Linear Regression and Modelling	Coursera	4 weeks	1	Duke University	Active

	Liitettive		Semester		-1	
Environmental Studies	The Science of Well Being	Coursera	6 weeks	2	Yale University	Active
	Ecology: Ecosystem Dynamics and Conservation	Coursera	5 weeks	1	American Museum of Natural History, Howard Hughes Medical Institute	Active
	Effective Problem Solving and Decision Making	Coursera	4 weeks	1	University of California	Active
	Moralities of Everyday Life	Coursera	6 weeks	2	Yale University	Active
	Introduction to Logic	Coursera	10 weeks	3	Stanford University	Active
	The Science of Everyday Thinking	edX	12 weeks	4	University of Queensland	Active
	Digital Security and Human Rights	edx	3 weeks	1	Amnesty InternationalX	Active
	Ethics in Engineering Practices	NPTEL	8 weeks	4		Active
	Introduction to Philosophy: God, Knowledge, and Consciousness	edX	12 weeks	4	MIT	Active
	Development of Sociology in India	NPTEL	4 Weeks	1	IIT Kanpur	Archived
	Introduction to Logic	NPTEL	12 weeks	4	IIT Kanpur	Archived

Introduction to Problem-solving and Programming	NPTEL	12 weeks	4	IIT Kanpur	Archived
Speak English Professionally : In Person, Online & On the Phone	Course era	4 weeks	1	Georgia Tech	Active
Java Fundamentals for Android Development	edX	6 weeks	2	GalileoX	Active
Environmental Studies: A Global Perspective	edX	Self Paced	4	Curtin University	Active
Science, Technology and Society	NPTEL	12 weeks	4		Active
Critical Thinking &Problem Solving	edX	3 weeks	3	Rochester Institute of Technology	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for MECHANICAL ENGINEERING For odd Sem 2020

No	Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Status
1	Business Analytics & Text Mining Modeling Using Python	8	3	Swayam	Active
2	Drones and Autonomous Systems I: Fundamentals	6		Edx	Active
3	Data Science: Productivit y Tools	8		Edx	Active
4	Product Design: The Delft Design Approach	7		Edx	Active
5	Lean Production	6		Edx	Active
6	Data Science for Engineers	8	3	Swayam	Active
7	Introduction to Machine Learning (IITM)	12	4	Swayam	Active
8	Python for Data Science	4	2	Swayam	Active
9	Introduction to Internet of Things	12	4	Swayam	Active
10	Artificial Intelligence (AI)	12		Edx	Active
11	Machine Learning	12		Edx	Active
12	Artificial Intelligence Search Methods For Problem Solving	12	4	Swayam	Active
13	Introduction to the Internet of Things (IoT)	6		Edx	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for FOOD TECHNOLOGY For Odd Sem 2020

No	Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Status
1	Commercial Fruit Production: Pomegranate & Guava	4	2	SWAYAM	Inactive
2	Life with Diabetes	5	2	EDX	Active
3	Nutrition and Health: Food Risks	8	3	EDX	Active
4	Thermal Operations in Food Process Engineering: Theory and Applications	12	4	Swayam	Active
5	Introduction to the Internet of Things (IoT)	6	3	Edx	Active
6	Introduction to Machine Learning (IITM)	12	4	Swayam	Active
7	Developing Soft Skills and Personality	8	3	Swayam	Active
8	Data Science for Engineers	8	3	Swayam	Active
10	Nutrition, Heart Disease and Diabetes	5		Edx	Active
11	Science & Cooking:From Haute Cuisine to Soft Matter Science (physics)	16		Edx	Active
12	Sustainable Agri food Marketing	8		Edx	Active

		Eneci	Oud Semester of 2020	J-21
13	Sustainable Food Security: Food Access	6	Edx	Active
14	Sustainable Food Security: The value of systems thinking	6	Edx	Active
15	Food for Thought	15	Edx	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 ELECTRICAL & ELECTRONICS ENGINEERING

Duration (Weeks)	Credit	Name of the Mooc websites	Availability of Course (Active/Inactive)
12	4	Swayam	Active
4	2	Coursera	Active
5	3	Coursera	Active
4	2	Coursera	Active
4	2	Edx	Active
12	4	Swayam	Active
8	3	Swayam	Active
12	4	Swayam	Active
4	2	Swayam	Active
12	4	Swayam	Active
3	2	Coursera	Active
12	4	Edx	Active
	(Weeks)   12   4   5   4   5   4   12   8   12   8   12   3	(Weeks)   12 4   12 4   4 2   5 3   4 2   4 2   4 2   12 4   8 3   12 4   12 4   3 2   3 2	(Weeks)websites124Swayam124Swayam42Coursera53Coursera42Edx124Swayam124Swayam124Swayam124Swayam124Swayam124Swayam124Swayam32Coursera

Machine				
Learning with	15	4	Edx	
Python: from	10	-	Lux	Active
linear models to				
deep learning				
Deep learning				
and neural	7	3	Edx	Active
network for				
financial				
engineering				

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCs for APPLIED ELECTRONICS & INSTRUMENTATION ENGINEERING

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Availability of Course (Active/Inactive)
Data Science: Visualization	8	3	Edx	Active
Drones and Autonomous Systems I: Fundamentals	6	3	Edx	Active
Introduction to the Internet of Things (IoT) and embedded system	4	2	Coursera	Active
IoT Networking and Fog Layer Devices	8	3	Edx	Active
Artificial Intelligence Search Methods For Problem Solving	12	4	Swayam	Active
Data Science for Engineers	8	3	Swayam	Active
Electric Cars: Introduction	4	2	Edx	Active
Programming for the Internet of Things Project	4	2	Coursera	Active
Introduction to cyber security	12	4	Swayam	Active

	Liite		oud Semester of	
Statistics with Python Specialization	3	2	Coursera	Active
Introduction to Internet of Things	12	4	Swayam	Active
Artificial Intelligence (AI)	12	4	Edx	Active
Machine Learning with Python: from linear models to deep learning	15	4	Edx	Active
Machine Learning fundamentals	10	4	Edx	Active
Introduction to Machine Learning (IITM)	12	4	Swayam	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for Biotechnology

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Availability of Course (Active/Inactive)
Learning Analytics tool	12	4	Swayam	Active
Introduction to Biostatistics	8	3	Swayam	Active
Data Science for Engineers	8	3	Swayam	Active
Introduction to Machine Learning (IITM)	12	4	Swayam	Active
Patenting in Biotechnology	4	2	Coursera	Active
Drug Discovery	3	2	Coursera	Active
Introduction to the Internet of Things (IoT) and embedded system	4	2	Coursera	Active
Artificial Intelligence Search Methods For Problem Solving	12	4	Swayam	Active
Programming for the Internet of Things Project	4	2	Coursera	Active
Introduction to Internet of Things	12	4	Swayam	Active
Artificial Intelligence (AI)	12	4	Edx	Active
Machine Learning with Python: from linear models to deep learning	15	4	Edx	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 ELECTRICAL ENGINEERING

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Availability of Course (Active/Inactive)
Fabrication Techniques for MEMs- based sensors: clinical Perspective	12	4	Swayam	Active
Introduction to computer vision with Watson and opency	4	2	Coursera	Active
Solar Energy Basics	5	3	Coursera	Active
Introduction to the Internet of Things (IoT) and embedded system	4	2	Coursera	Active
IoT Networking and Fog Layer Devices	4	2	Edx	Active
Artificial Intelligence Search Methods For Problem Solving	12	4	Swayam	Active
Data Science for Engineers	8	3	Swayam	Active
Introduction to Machine Learning (IITM)	12	4	Swayam	Active
Python for Data Science	4	2	Swayam	Active
Introduction to cyber security	12	4	Swayam	Active
Statistics with Python Specialization	3	2	Coursera	Active
Artificial Intelligence (AI)	12	4	Edx	Active

	Effective for Odd Semester of 2020-21						
Machine Learning with Python: from linear models to deep learning	15	4	Edx	Active			
Deep learning and neural network for financial engineering	7	3	Edx	Active			

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for CHEMICAL ENGINEERING (Odd sem)

No	Course Name	Duration	Credit	Platform	Active Link
1	Infrared Spectroscopy for Pollution Monitoring	4 weeks	2	NPTEL	https://onlinecourses.nptel. ac.in/noc20_ch23/preview
2	Technologies for Clean and Renewable Energy Production	8 weeks	4	NPTEL	https://onlinecourses.nptel. ac.in/noc20_ch37/preview
3	Introduction to Deep Earth Science	5 weeks	3	EDX	https://www.edx.org/cours e/introduction-to-deep- earth-science
4	Basic Analytical Chemistry	6 weeks	3	EDX	https://www.edx.org/c ourse/basic-analytical- chemistry
5	Air Pollution – a Global Threat to our Health	3 weeks	2	Coursera	https://www.coursera. org/learn/air-pollution- health-threat
6	Data Science for Engineers	8 weeks	4	NPTEL	https://onlinecourses.n ptel.ac.in/noc20_cs72/ preview
7	Demand and Supply Analytics	12 weeks	6	EDX	https://www.edx.org/c ourse/demand-and- supply-analytics
8	Introduction to Engineering and Design	3 weeks	2	EDX	https://www.edx.org/c ourse/introduction-to- engineering-and-design
9	Biorefinery: From Biomass to Building Blocks of Biobased Products	7 weeks	4	EDX	https://www.edx.org/c ourse/biorefinery- from-biomass-to- building-blocks-of-bio
10	Water quality and the biogeochemical engine	13 weeks	6	EDX	https://www.edx.org/c ourse/water-quality- and-the- biogeochemical-engine
11	Programming for the Internet of Things Project	4 weeks	2	Coursera	https://www.coursera. org/learn/internet-of- things-project
12	IoT: From hardware to practice	8 weeks	4	EDX	https://www.edx.org/c ourse/a-subjective- introduction-to-the-iot

#### 13 4 weeks 2 EDX AI for everyone https://www.edx.org/c ourse/artificialintelligence-foreveryone 14 Intro to Machine 12 weeks 6 NPTEL https://onlinecourses.n Learning ptel.ac.in/noc20 cs73/ preview Cyber security 15 weeks NPTEL 15 6 https://onlinecourses.s wayam2.ac.in/cec20 cs 15/preview 16 12 4 Coursera Fundamentals of Active Scalable Data Science(by IBM) 12 17 Data Analysis and 4 Coursera <u>Active</u> Interpretation 18 Machine Learning for 12 4 Coursera Active Accounting with Python 19 Data Processing Using 12 4 Coursera <u>Active</u> Python 20 Introduction to 8 4 Coursera <u>Active</u> Artificial Intelligence (by IBM) 21 Data Science: 12 4 Coursera Active Foundations using R Specialization Python for Data 8 22 4 Coursera Active Science and AI 23 Data Science: Statistics 12 4 Coursera <u>Active</u> and Machine Learning Specialization R Programming 20 24 4 Coursera Active Python and Statistics for 25 4 2 Coursera Active **Financial Analysis** Applied Machine 4 12 26 Coursera <u>Active</u> Learning in Python 27 Machine Learning, ML 12 4 Coursera Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCs for Civil & Environmental Engineering (Odd sem)

No.	Course Name	Duration( Weeks)	Credit	Name of the Moocs websites	Status
1	Earthquake Resistant Design of Foundations	8	4	Swayam	Active
2	Environmental Chemistry	12	4	Swayam	Active
3	Earth science for Civil Engineering	8	4	SWAYAM	Active
4	Geotechnical Engineering Lab	4	2	Swayam	Active
5	Global Navigation satellite systems and applications	4	2	Swayam	Active
6	River Engineering	8	4	Swayam	Active
7	Remote sensing and GIS	4	2	Swayam	Active
8	Python for Data Science	4	2	Swayam	<u>Active</u>
9	Fundamentals of Scalable Data Science(by IBM)	12	4	Coursera	Active
10	Data Analysis and Interpretation	12	4	Coursera	Active
11	Machine Learning for Accounting with Python	12	4	Coursera	Active
12	Data Processing Using Python	12	4	Coursera	Active
13	Introduction to Artificial Intelligence (by IBM)	8	4	Coursera	Active
14	Data Science: Foundations using R Specialization	12	4	Coursera	Active
15	Python for Data Science and AI	8	4	Coursera	Active
16	Data Science: Statistics and Machine Learning Specialization	12	4	Coursera	Active
17	R Programming	20	4	Coursera	Active
18	Python and Statistics for Financial Analysis	4	2	Coursera	Active
19	Applied Machine Learning in Python	12	4	Coursera	Active
20	Machine Learning, ML	12	4	Coursera	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS FOR B. Arch (Odd Sem)

Course Name	Duration(Weeks )	Credit	Name of the Mooc websites	Status
Sustainability in Architecture: An Interdisciplinary Introduction	4	2	EDx	Active
Future Cities	10	4	EDx	Active
Quality of Life: Livability in Future Cities	11	4	Edx	Active
Realistic Architectural 3D Modeling	4	2	EDx	Active
Responsive Cities	10	4	Edx	Active
3D Modeling from Architectural Drawings	4	2	Edx	Active
Eco design for Cities and Suburbs	6	3	EDx	Active
Smart Cities	10	4	EDx	Active
Interpreting Vernacular Architecture in Asia	6	3	EDx	Active
The Architectural Imagination	10	4	EDx	Active
Zero-Energy Design: an approach to make your building sustainable	7	3	EDx	Active
Fundamentals of Scalable Data Science(by IBM)BM DATA SCIENCE	12	4	Coursera	<u>Active</u>
Data Analysis and Interpretation	12	4	Coursera	<u>Active</u>
Machine Learning for Accounting with Python	12	4	Coursera	<u>Active</u>
Data Processing Using Python	12	4	Coursera	<u>Active</u>

List of MOOCs for UG Honours degree (AICTE Programmes)
Effective for Odd Semester of 2020-21

Introduction to Artificial	8	4	Coursera	<u>Active</u>			
Intelligence (by IBM)							
Data Science: Foundations	12	4	Coursera	<u>Active</u>			
using R Specialization							
Python for Data Science	8	4	Coursera	Active			
and Al							
Data Science: Statistics and	12	4	Coursera	Active			
Machine Learning							
Specialization							
R Programming	20	4	Coursera	<u>Active</u>			
Python and Statistics for	4	2	Coursera	Active			
Financial Analysis							
Applied Machine	12	4	Coursera	Active			
Learning in Python							
Machine Learning, ML	12	4	Coursera	<u>Active</u>			

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCs for Civil Engineering (Odd sem)

Course Name	Duration(Weeks)	Credit	Name of the Moocs websites	Status
Earthquake Resistant Design of Foundations	8	4	Swayam	<u>Active</u>
Environmental Chemistry	12	4	Swayam	Active
Earth science for Civil Engineering	8	4	SWAYAM	Active
Geotechnical Engineering Lab	4	2	Swayam	Active
Global Navigation satellite systems and applications	4	2	Swayam	Active
River Engineering	8	4	Swayam	Active
Remote sensing and GIS	4	2	Swayam	Active
Python for Data Science	4	2	Swayam	<u>Active</u>
Fundamentals of Scalable Data Science(by IBM)	12	4	Coursera	Active
Data Analysis and Interpretation	12	4	Coursera	Active
Machine Learning for Accounting with Python	12	4	Coursera	Active
Data Processing Using Python	12	4	Coursera	Active
Introduction to Artificial Intelligence (by IBM)	8	4	Coursera	Active
Data Science: Foundations using R Specialization	12	4	Coursera	Active
Python for Data Science and AI	8	4	Coursera	Active
Data Science: Statistics and Machine Learning Specialization	12	4	Coursera	Active
R Programming	20	4	Coursera	Active
Python and Statistics for Financial Analysis	4	2	Coursera	Active
Applied Machine Learning in Python	12	4	Coursera	Active
Machine Learning, ML	12	4	Coursera	Active

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

# **MOOCs for ELECTRONICS & COMMUNICATION ENGG**

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Availability of Course (Active/Inactive)
Data Science: Visualization	8	3	Edx	Active
Drones and Autonomous Systems I: Fundamentals	6	3	Edx	Active
Introduction to the Internet of Things (IoT) and embedded system	4	2	Coursera	Active
IoT Networking and Fog Layer Devices	8	3	Edx	Active
Artificial Intelligence Search Methods For Problem Solving	12	4	Swayam	Active
Data Science for Engineers	8	3	Swayam	Active
Electric Cars: Introduction	4	2	Edx	Active
Programming for the Internet of Things Project	4	2	Coursera	Active
Introduction to cyber security	12	4	Swayam	Active

	Effective for Odd Semester of 2020-21					
Statistics with Python Specialization	3	2	Coursera	Active		
Introduction to Internet of Things	12	4	Swayam	Active		
Artificial Intelligence (AI)	12	4	Edx	Active		
Machine Learning with Python: from linear models to deep learning	15	4	Edx	Active		
Machine Learning fundamentals	10	4	Edx	Active		
Introduction to Machine Learning (IITM)	12	4	Swayam	Active		

# List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

	002101	(Hons.) CSE		
Course Name	Duration (weeks)	Credit	Name of the Mooc websites	Availibility
AP Computer Science A: Java Programming Polymorphism and Advanced Data Structures	6	2	EDX	available
Build your very first iOS app	8	3	EDX	Available
Gameplay Programming for Video Game Designers	5	2	EDX	Available
Introduction to Computer Science & Programming Specialization	8	3	COURSERA	Available
Introduction to scripting in Python	8	3	COURSERA	Available
Foundation of Data Structures	6	2	EDX	Available
Synthesis of Digital Systems	12	3	MIT ONLINE COURSE	Available
Bayesian Statistics: Techniques and Models	5	2	COURSERA	Available
Mathematical Modelling Basics	9	3	EDX	Available
Animation and CGI Motion	12	3	EDX	Available
Web Application Development	6	2	COURSERA	Available
Web Design for Everybody	12	3	COURSERA	Available
The Bits and Bytes of Computer Networking	4	1	COURSERA	Available
Introduction to Cisco Networking	4	1	COURSERA	Available

# **MOOCs for B.TECH (Hons.) CSE**

E	ffective for (	Jdd Semest	er of 2020-21	
Introduction to Computing for Data Analysis with Python	6	2	EDX	Available
Introduction to data science in python	3	1	COURSERA	Available
What is Data Science?	3	1	COURSERA	Available
Introduction to Big Data	3	1	COURSERA	Available
The Data Science Tool Box	2	1	COURSERA	Available
Data Driven Decision Making	2	1	COURSERA	Available
A Crash Course in Data Science	1	1	COURSERA	Available
Digital Security and Human Rights	3	1	EDX	Available
Data Analysis and Interpretation	12	3	COURSERA	Available
Introduction to Design Thinking	5	2	EDX	Available
Introduction to Soft Computing	8	2	SWAYAM	Available
Introduction to Data Modelling	4	1	EDX	Available
Java Fundamentals for Android Development	6	2	EDX	Available
Using Databases with Python	5	2	COURSERA	Available
Data Base Management System	8	2	NPTEL	Available
Discrete Mathematics	12	3	NPTEL	Available
Programming, Data Structures and Algorithms using Python	8	2	NPTEL	Available
Design and Analysis of Algorithms	8	2	NPTEL	Available
Algorithm Specialization	16	4	COURSERA	Available

E	ffective for (	Odd Semest	er of 2020-21	
Divide and Conquer, Sorting, Searching and Randomized Algorithm	4	1	COURSERA	Available
Cloud Computing	8	2	NPTEL	Available
Cloud Computing	5	2	COURSERA	Available
Bitcoin and Crypto currency Technologies	11	3	COURSERA	Available
Ethical Hacking	8	2	UDEMY	Available
Cyber security and its 10 domains	7	2	COURSERA	Available
Introduction to Internet of Things	12	3	NPTEL	Available
Introduction to the Internet of Things	6	2	EDX	Available
IoT Programming and Big Data	5	2	EDX	Available
Data Communications and Network Services	4	1	COURSERA	Available
UML Class Diagrams for Software Engineering	3	1	EDX	Available
Formal Software Verification	8	2	EDX	
Software testing	12	3	COURSERA	
Software Engineering	12	3	EDX	
Software Project Management	12	3	COURSERA	Available
Software Product Management Specialization	16	4	COURSERA	Available
Entrepreneurship in Emerging Economies	6	2	EDX	Available
Patent Drafting for Beginners	4	1	EDX	Available
Patent Law for Engineers and Scientists	12	3	EDX	Available
Introduction to Computational Thinking and Data	10	3	EDX	Available

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Science				
Data Mining: Theories and Algorithms for Big Data	14	4	EDX	Available
Big Data Fundamentals	10	3	EDX	Available
Big Data Analytics	10	3	EDX	Available
Foundations of Data Science : Computational Thinking with Python	5	2	EDX	Available
How to win a Data Science Competition : Learn from Top Kagglers	5	2	COURSERA	Available
Virtual Reality	4	1	COURSERA	Available
Principles of Machine Learning	6	2	EDX	Available
Machine Learning	12	4	COURSERA	Available
AI For Everyone	4	1	COURSERA	Available
Robotics: Aerial Robotics	6	2	COURSERA	Available
Deep learning in Computer Vision	5	2	COURSERA	Available
Deep Learning – Part 1	12	3	COURSERA	Available
Artificial Intelligence Search Method for Problem Solving	12	3	COURSERA	Available
Machine Learning for Engineering and Science Applications	12	3	COURSERA	Available
Computer Vision	12	3	EDX	Available
Introduction to Machine Learning	12	3	COURSERA	Available
Introduction to Machine Learning	8	2	COURSERA	Available
Functional Programming in Scala	6	2	COURSERA	Available
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E	fective for	Odd Semes	ter of 2020-21	
Using python to access web data	6	2	COURSERA	Available
Python Data Structures	2	1	COURSERA	Available
Object oriented analysis and design	8	2	COURSERA	Available
Python 3 Programming Specialization	8	2	COURSERA	Available
Natural Language Processing	5	2	COURSERA	Available
Applied Natural Language Processing	12	3	EDX	Available
Natural Language Processing	12	3	EDX	Available
Embedded Systems	12	3	NPTEL	Available
Introduction to Industry 4.0 and Industrial Internet of Things	12	3	NPTEL	Available
A System View of Communications: From Signals to Packets (Part – 2)	6	2	Edx	Available
Software Testing fundamentals	8	2	Edx	Available
Software Testing and Management	8	2	EDX	Available
Neural Network & Deep Learning	4	1	COURSERA	Available
Teamwork and Collaboration	3	1	EDX	Available
Demystifying Networking	4	1	EDX	Available
Cyber security and Privacy in the IoT	5	2	EDX	Available
IoT System Design: Software and Hardware Integration	4	1	EDX	Available
Blockchain and Fin Tech: Basics, Applications, and Limitations	6	2	EDX	Available

Ef	fective for (	Odd Semest	ter of 2020-21	
Block Chain Specialization	8	2	EDX	Available
A System View of Communications: From Signals to Packets (Part 3)	5	2	EDX	Available
Internet of Things	12	3	NPTEL	Available
Computational Thinking for Modeling and Simulation	6	2	EDX	Available
Mathematics For Machine Learning: Multivariate Calculas	6	2	COURSERA	Available
Becoming an Entrepreneur	6	2	EDX	Available
Marketing Fundamentals	4	1	EDX	Available
IBM Data Science Professional Certificate	8	2	COURSERA	Available
Data Science with Python	10	3	EDX	Available
Artificial Intelligence	12	3	NPTEL	Available
Foundations of Data Science: Prediction and MachineLearning	6	2	EDX	Available
Robotics: Vision Intelligence & Machine Learning	12	3	EDX	Available
Deep Learning Specialization	12	3	COURSERA	Available
Machine learning with Tensor Flow on Google Cloud Platform Specialization	4	1	COURSERA	Available
Applied Machine Learning with Python	3	1	COURSERA	Available
Convolution Neural Network	4	1	COURSERA	Available
Sequence Model	2	1	COURSERA	Available
Deep Learning	6	2	EDX	Available
Deep Learning	12	3	NPTEL	Available

Et	fective for	Odd Semes	ter of 2020-21	
Reinforcement Learning	12	3	EDX	Available
Neural Networks for Machine Learning	16	4	COURSERA	Available
Cloud Computing for Enterprises	8	2	EDX	Available
Cloud Computing Management	8	2	EDX	Available
Cloud Computing Infrastructure	8	2	EDX	Available
Data Engineering on Google Cloud Platform Specialization	4	1	COURSERA	Available
Security in Google Cloud Platform Specialization	4	1	COURSERA	Available
AWS Fundamental: Going Cloud Native	5	2	COURSERA	Available
Remote Sensing	12	3	NPTEL	Available
Google cloud Platform Big data and Machine Learning Platform	2	1	COURSERA	Available
Leadership for Engineers	6	2	EDX	Available
Computer Forensics	8	2	EDX	Available
Compliance in Office 365: Data Governance	4	1	EDX	Available
Human Computer Interactions	8	2	EDX	Available
Social Networks	12	3	NPTEL	Available
Machine Learning	8	2	NPTEL	Available
Introduction to Machine Learning	12	3	NPTEL	Available
Deep Learning	12		NPTEL	Available
Data Science for Engineers	8	2	NPTEL	Available
Introduction to Internet of Things	12	3	NPTEL	Available

#### List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

Introduction to	12	3	NPTEL	Available
Industry 4.0 and				
Industrial Internet of				
Things				

# **MOOCs for B.TECH (Hons.) IT**

No.	Course Name	Duration (weeks)	Credit	Name of the Mooc websites	Availibility
1	AP Computer Science A: Java Programming Polymorphism and Advanced Data Structures	6	2	EDX	available
2	Build your very first iOS app	8	3	EDX	Available
3	Gameplay Programming for Video Game Designers	5	2	EDX	Available
4	Introduction to Computer Science & Programming Specialization	8	3	COURSERA	Available
5	Introduction to scripting in Python	8	3	COURSERA	Available
6	Foundation of Data Structures	6	2	EDX	Available
7	Synthesis of Digital Systems	12	3	MIT ONLINE COURSE	Available
8	Bayesian Statistics: Techniques and Models	5	2	COURSERA	Available
9	Mathematical Modelling Basics	9	3	EDX	Available
10	Animation and CGI Motion	12	3	EDX	Available
11	Web Application Development	6	2	COURSERA	Available
12	Web Design for Everybody	12	3	COURSERA	Available

	Effective for	or Odd Sem	ester of 20	20-21	
13	The Bits and Bytes of Computer Networking	4	1	COURSERA	Available
14	Introduction to Cisco Networking	4	1	COURSERA	Available
15	Introduction to Computing for Data Analysis with Python	6	2	EDX	Available
16	Introduction to data science in python	3	1	COURSERA	Available
17	What is Data Science?	3	1	COURSERA	Available
18	Introduction to Big Data	3	1	COURSERA	Available
19	The Data Science Tool Box	2	1	COURSERA	Available
20	Data Driven Decision Making	2	1	COURSERA	Available
21	A Crash Course in Data Science	1	1	COURSERA	Available
22	Digital Security and Human Rights	3	1	EDX	Available
23	Data Analysis and Interpretation	12	3	COURSERA	Available
24	Introduction to Design Thinking	5	2	EDX	Available
25	Introduction to Soft Computing	8	2	SWAYAM	Available
26	Introduction to Data Modelling	4	1	EDX	Available
27	Java Fundamentals for Android Development	6	2	EDX	Available
28	Using Databases with Python	5	2	COURSERA	Available
29	Data Base Management System	8	2	NPTEL	Available
30	Discrete Mathematics	12	3	NPTEL	Available

	Effective for	or Odd Sem	lester of 202	20-21	
31	Programming, Data Structures and Algorithms using Python	8	2	NPTEL	Available
32	Design and Analysis of Algorithms	8	2	NPTEL	Available
33	Algorithm Specialization	16	4	COURSERA	Available
34	Divide and Conquer, Sorting, Searching and Randomized Algorithm	4	1	COURSERA	Available
35	Cloud Computing	8	2	NPTEL	Available
36	Cloud Computing	5	2	COURSERA	Available
37	Bitcoin and Crypto currency Technologies	11	3	COURSERA	Available
38	Ethical Hacking	8	2	UDEMY	Available
39	Cyber security and its 10 domains	7	2	COURSERA	Available
40	Introduction to Internet of Things	12	3	NPTEL	Available
41	Introduction to the Internet of Things	6	2	EDX	Available
42	IoT Programming and Big Data	5	2	EDX	Available
43	Data Communications and Network Services	4	1	COURSERA	Available
44	UML Class Diagrams for Software Engineering	3	1	EDX	Available
45	Formal Software Verification	8	2	EDX	
46	Software testing	12	3	COURSERA	
47	Software Engineering	12	3	EDX	
48	Software Project Management	12	3	COURSERA	Available
49	Software Product Management Specialization	16	4	COURSERA	Available
50	Entrepreneurship in Emerging Economies	6	2	EDX	Available

	Effective fo	r Oua Sem	lester of 202	20-21	
51	Patent Drafting for Beginners	4	1	EDX	Available
52	Patent Law for Engineers and Scientists	12	3	EDX	Available
53	Introduction to Computational Thinking and Data Science	10	3	EDX	Available
54	Data Mining: Theories and Algorithms for Big Data	14	4	EDX	Available
55	Big Data Fundamentals	10	3	EDX	Available
56	Big Data Analytics	10	3	EDX	Available
57	Foundations of Data Science : Computational Thinking with Python	5	2	EDX	Available
58	How to win a Data Science Competition : Learn from Top Kagglers	5	2	COURSERA	Available
59	Virtual Reality	4	1	COURSERA	Available
60	Principles of Machine Learning	6	2	EDX	Available
61	Machine Learning	12	4	COURSERA	Available
62	AI For Everyone	4	1	COURSERA	Available
63	Robotics: Aerial Robotics	6	2	COURSERA	Available
64	Deep learning in Computer Vision	5	2	COURSERA	Available
65	Deep Learning – Part 1	12	3	COURSERA	Available
66	Artificial Intelligence Search Method for Problem Solving	12	3	COURSERA	Available
67	Machine Learning for Engineering and Science Applications	12	3	COURSERA	Available
68	Computer Vision	12	3	EDX	Available

	Effective fo	r Odd Sem	lester of 20.	20-21	
69	Introduction to Machine Learning	12	3	COURSERA	Available
70	Introduction to Machine Learning	8	2	COURSERA	Available
71	Functional Programming in Scala	6	2	COURSERA	Available
72	Using python to access web data	6	2	COURSERA	Available
73	Python Data Structures	2	1	COURSERA	Available
74	Object oriented analysis and design	8	2	COURSERA	Available
75	Python 3 Programming Specialization	8	2	COURSERA	Available
76	Natural Language Processing	5	2	COURSERA	Available
77	Applied Natural Language Processing	12	3	EDX	Available
78	Natural Language Processing	12	3	EDX	Available
79	Embedded Systems	12	3	NPTEL	Available
80	Introduction to Industry 4.0 and Industrial Internet of Things	12	3	NPTEL	Available
81	A System View of Communications: From Signals to Packets (Part – 2)	6	2	Edx	Available
82	Software Testing fundamentals	8	2	Edx	Available
83	Software Testing and Management	8	2	EDX	Available
84	Neural Network & Deep Learning	4	1	COURSERA	Available
85	Teamwork and Collaboration	3	1	EDX	Available
86	Demystifying Networking	4	1	EDX	Available
87	Cyber security and Privacy in the IoT	5	2	EDX	Available

	Effective fo	or Odd Sem	ester of 202	20-21	
88	IoT System Design: Software and Hardware Integration	4	1	EDX	Available
89	Blockchain and Fin Tech: Basics, Applications, and Limitations	6	2	EDX	Available
90	Block Chain Specialization	8	2	EDX	Available
91	A System View of Communications: From Signals to Packets (Part 3)	5	2	EDX	Available
92	Internet of Things	12	3	NPTEL	Available
93	Computational Thinking for Modeling and Simulation	6	2	EDX	Available
94	Mathematics For Machine Learning: Multivariate Calculas	6	2	COURSERA	Available
95	Becoming an Entrepreneur	6	2	EDX	Available
96	Marketing Fundamentals	4	1	EDX	Available
97	IBM Data Science Professional Certificate	8	2	COURSERA	Available
98	Data Science with Python	10	3	EDX	Available
99	Artificial Intelligence	12	3	NPTEL	Available
100	Foundations of Data Science: Prediction and MachineLearning	6	2	EDX	Available
101	Robotics: Vision Intelligence & Machine Learning	12	3	EDX	Available
102	Deep Learning Specialization	12	3	COURSERA	Available
103	Machine learning with Tensor Flow on Google Cloud Platform Specialization	4	1	COURSERA	Available
104	Applied Machine Learning with Python	3	1	COURSERA	Available
105	Convolution Neural Network	4	1	COURSERA	Available

Effective for Odd Semester of 2020-21						
106	Sequence Model	2	1	COURSERA	Available	
107	Deep Learning	6	2	EDX	Available	
108	Deep Learning	12	3	NPTEL	Available	
109	Reinforcement Learning	12	3	EDX	Available	
110	Neural Networks for Machine Learning	16	4	COURSERA	Available	
111	Cloud Computing for Enterprises	8	2	EDX	Available	
112	Cloud Computing Management	8	2	EDX	Available	
113	Cloud Computing Infrastructure	8	2	EDX	Available	
114	Data Engineering on Google Cloud Platform Specialization	4	1	COURSERA	Available	
115	Security in Google Cloud Platform Specialization	4	1	COURSERA	Available	
116	AWS Fundamental: Going Cloud Native	5	2	COURSERA	Available	
117	Remote Sensing	12	3	NPTEL	Available	
118	Google cloud Platform Big data and Machine Learning Platform	2	1	COURSERA	Available	
119	Remote Sensing and Digital Image Processing of Satellite Data	8	2	NPTEL	Not Available	
120	Leadership for Engineers	6	2	EDX	Available	
121	Computer Forensics	8	2	EDX	Available	
122	Compliance in Office 365: Data Governance	4	1	EDX	Available	
123	Human Computer Interactions	8	2	EDX	Available	
124	Social Networks	12	3	NPTEL	Available	
129	Machine Learning	8	2	NPTEL	Available	

Effective for Oud Semester of 2020-21						
130	Introduction to Machine Learning	12	3	NPTEL	Available	
133	Deep Learning	12		NPTEL	Available	
134	Data Science for Engineers	8	2	NPTEL	Available	
136	Introduction to Internet of Things	12	3	NPTEL	Available	
137	Introduction to Industry 4.0 and Industrial Internet of Things	12	3	NPTEL	Available	

List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

# **MOOCs for B. Pharm (Hons)**

Course Name	Duration (weeks)	Credit	Name of the Mooc websites	Availibility
Fundamentals of Spectroscopy	12	3	SWAYAM	Available
Organometallic Chemistry	4	1	SWAYAM	Available
Biochemistry	12	3	SWAYAM	Available
Principles and application of NMR spectroscopy	8	2	SWAYAM	Available
Medical Biomaterials	8	2	SWAYAM	Available
Computational systems Biology	12	3	SWAYAM	Available
Bio engineering: An interface with biology and medicine	8	2	SWAYAM	Available
Bio-informatics: Algorithms and application	12	3	SWAYAM	Available
Medical Biomaterials	8	2	SWAYAM	Available
Mass transfer operation-I	12	2	SWAYAM	Available
Soft nano technology	8	2	SWAYAM	Available
Enhancing soft skills and personality	8	2	SWAYAM	Available
Soft skill development	8	2	SWAYAM	Available
Introduction to materials Science and Engineering	12	3	SWAYAM	Available
Statistical Inference	8	2	SWAYAM	Available

### Effective for Odd Semester of 2020-21(REVISED)

Ef	fective for	Odd Semest	ter of 2020-21	
Regulatory requirements for medical Device	4	3	SWAYAM	Available
Business statistics	12	3	SWAYAM	Available
Business analysis and data mining modelling using R	12	3	SWAYAM	Available
Basic Real analysis	12	3	SWAYAM	Available
Prescription Drug Regulation, Cost, and Access: Current Controversies in Context	8	2	EDX	Available
Medicinal Chemistry: The Molecular Basis of Drug Discovery	7	2	EDX	Available
Human Anatomy	6	2	EDX	Available
Principle of Biochemistry	15	4	EDX	Available
Health Informatics: The Cutting Edge	5	2	EDX	Available
CERTAIN : Pragmatic Clinical Trials and Healthcare Delivery Evaluations	8	2	EDX	Available
Molecular Biology - Part 1: DNA Replication and Repair	8	2	EDX	Available
Molecular Biology - Part 2: Transcription and Transposition	7	2	EDX	Available
Proteins: Biology's Workforce	5	2	EDX	Available
Autophagy: Research behind the 2016 Nobel Prize in Physiology or	3	1	EDX	Available

Effective for Odd Semester of 2020-21					
Medicine					
The Immune System: New Developments in Research - Part 1	4	1	EDX	Available	
Metabolomics in Life Sciences	4	1	EDX	Available	
BioStatistics	8	2	EDX	Available	
Fundamentals of Scalable Data Science(by IBM)	12	3	COURSERA	Available	
Data Analysis and Interpretation	12	3	COURSERA	Available	
Machine Learning for Accounting with Python	12	3	COURSERA	Available	
Data Processing Using Python	12	3	COURSERA	Available	
Introduction to Artificial Intelligence (by IBM)	8	2	COURSERA	Available	
Data Science: Foundations using R Specialization	12	3	COURSERA	Available	
Python for Data Science and AI	8	2	COURSERA	Available	
Data Science: Statistics and Machine Learning Specialization	12	3	COURSERA	Available	
Python and Statistics for Financial Analysis	4	1	COURSERA	Available	
Applied Machine Learning in Python	12	4	COURSERA	Available	
Machine Learning	8	2	NPTEL	Available	
Introduction to Machine Learning	12	3	NPTEL	Available	
Data Science for Engineers	8	2	NPTEL	Available	

E	fective for (	<b>Jdd Semest</b>	er of 2020-21	
Introduction to Internet of Things	12	3	NPTEL	Available
Infrared spectroscopy for pollution monitoring	4	2	NPTEL	Available
Computer Aided Drug Design	8	2	NPTEL	Available
Spectroscopic Techniques for Pharmaceutical and Biopharmaceutical Industries	12	3	NPTEL	Available
Principles Of Downstream Techniques In Bioprocess	12	3	NPTEL	Available
Fundamentals of micro and nanofabrication	12	3	NPTEL	Available
Drug Delivery: Principles and Engineering	12	3	NPTEL	Available
Biomedical nanotechnology	4	2	NPTEL	Available
Non-Parametric Statistical Inference	4	2	SWAYAM	Available
Introduction to Biostatistics	8	2	NPTEL	Available
Business statistics	12	3	SWAYAM	Available
One and two dimensional NMR Spectroscopy for chemists	12		Nptel	Available
Prescription Drug Regulation, Cost, and Access: Current Controversies in Context	8	2	EDX	Available
Medicinal Chemistry: The Molecular Basis of Drug Discovery	7	2	EDX	Available

E	fective for	Odd Semest	er of 2020-21	
Human Anatomy	6	2	EDX	Available
Principle of Biochemistry	15	4	EDX	Available
Health Informatics: The Cutting Edge	5	2	EDX	Available
CERTAIN : Pragmatic Clinical Trials and Healthcare Delivery Evaluations	8	2	EDX	Available
Molecular Biology - Part 1: DNA Replication and Repair	8	2	EDX	Available
Molecular Biology - Part 2: Transcription and Transposition	7	2	EDX	Available
Proteins: Biology's Workforce	5	2	EDX	Available
Autophagy: Research behind the 2016 Nobel Prize in Physiology or Medicine	3	1	EDX	Available
The Immune System: New Developments in Research - Part 1	4	1	EDX	Available
Metabolomics in Life Sciences	4	1	EDX	Available
BioStatistics	8	2	EDX	Available
Fundamentals of Scalable Data Science(by IBM)	12	3	COURSERA	Available
Data Analysis and Interpretation	12	3	COURSERA	Available
Machine Learning for Accounting with Python	12	3	COURSERA	Available
Data Processing Using Python	12	3	COURSERA	Available

E	liective for v	Juu Semesi	er of 2020-21	
Introduction to Artificial Intelligence (by IBM)	8	2	COURSERA	Available
Data Science: Foundations using R Specialization	12	3	COURSERA	Available
Python for Data Science and AI	8	2	COURSERA	Available
Data Science: Statistics and Machine Learning Specialization	12	3	COURSERA	Available
Python and Statistics for Financial Analysis	4	1	COURSERA	Available
Applied Machine Learning in Python	12	4	COURSERA	Available
Introduction to Machine Learning	12	3	NPTEL	Available
Data Science for Engineers	8	2	NPTEL	Available
Introduction to Internet of Things	12	3	NPTEL	Available
Industrial Pharmacy I	12	3	Swayam	Available

#### List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

#### **MOOCS for AUTOMOBILE ENGINEERING**

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	ACTIVE(Y/N)
Control of Nonlinear Spacecraft Attitude Motion	4	2	COURSERA	Y
Introduction to Self- Driving Cars	7	2	COURSERA	Y
Drones and Autonomous Systems I: Fundamentals	6	3	Edx	Y
Electric Cars: Introduction	6	3	Edx	Y
Programming for the Internet of Things Project	4	2	Coursera	Y
Electric and Conventional Vehicles	6	3	Edx	Y
Fundamentals of Scalable Data Science(by IBM)	12	4	Coursera	A
Data Analysis and Interpretation	12	4	Coursera	<b>k</b>
Machine Learning for Accounting with Python	12	4	Coursera	Å
Data Processing Using Python	12	4	Coursera	A

	Ellective	e for Oad	Semester of 20	20-21
Introduction to Artificial Intelligence (by IBM)	8	4	Coursera	A.
Data Science: Foundations using R Specialization	12	4	Coursera	<b>A</b>
Python for Data Science and AI	8	4	Coursera	<b>A</b>
Data Science: Statistics and Machine Learning Specialization	12	4	Coursera	*
R Programming	20	4	Coursera	<b>A</b>
Python and Statistics for Financial Analysis	4	2	Coursera	<b>k</b>
Applied Machine Learning in Python	12	4	Coursera	*
Machine Learning	12	4	Coursera	<b>A</b>

#### List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

#### **MOOCs for HOTEL MANAGEMENT & CATERING TECHNOLOGY**

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	ACTIVE(Y/N)
Hotel Management: Distribution, Revenue and Demand Manage ment	4		COURSERA	Y
Demand and Supply Analytics	12		Edx	N
Thermal Operations in Food Process Engineering: Theory and Applications	12	4	Swayam	N
Introduction To Learning Analytics	4	2	Swayam	N
Introduction to Global Hospitality Management	6		Edx	Y
Introduction to Machine Learning (IITM)	12	4	Swayam	У
Hospitality and Tourism Technology and Innovation	6		Edx	Y
Managing Human Resources in the Hospitality and Tourism Industry	6		Edx	Y

	шиееи		uu Semester of 2	
Introduction to Internet of Things	12	4	Swayam	Y
Artificial Intelligence (AI)	12		Edx	Ν
Fundamentals of Scalable Data Science(by IBM)	12	4	Coursera	Active
Data Analysis and Interpretation	12	4	Coursera	Active
Machine Learning for Accounting with Python	12	4	Coursera	Active
Data Processing Using Python	12	4	Coursera	Active
Introduction to Artificial Intelligence (by IBM)	8	4	Coursera	Active
Data Science: Foundations using R Specialization	12	4	Coursera	Active
Python for Data Science and AI	8	4	Coursera	Active
Data Science: Statistics and Machine Learning Specialization	12	4	Coursera	Active

	Lincen		uu semester or 2	
R Programming	20	4	Coursera	Active
Python and Statistics for Financial Analysis	4	2	Coursera	Active
Applied Machine Learning in Python	12	4	Coursera	Active
Machine Learning	12	4	Coursera	Active

### List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for INSTRUMENTATION & CONTROL ENGINEERING

No.	Course name	Duration (weeks)	Credit	Name of MOOC website	link
1	Data Science: Inference and Modeling	8		edX	https://www.edx.org/course/data- science-inference-and-modeling
2	Professional Certificate in Drones and Autonomous Systems	12		edX	https://www.edx.org/professional- certificate/umgc-usmx-drones-and- autonomous-systems
3	Professional Certificate in IoT: from hardware to practice	16		edX	https://www.edx.org/professional- certificate/itmox-iot-from-hardware-to- practice
4	Introduction to Internet of Things	12		SWAYAM	https://www.nptel.ac.in/noc/courses/noc 20/SEM1/noc20-cs22/
5	Artificial Intelligence Search Methods For Problem Solving	12		SWAYAM	https://onlinecourses.nptel.ac.in/noc20_c s81/preview
6	Data Science for Engineers	8		SWAYAM	https://onlinecourses.nptel.ac.in/noc20_c s72/preview
7	Electric Cars: Introduction	4		edX	https://www.edx.org/course/electric- cars-introduction
8	Programming for the Internet of Things Project	4		Coursera	https://www.coursera.org/learn/internet -of-things-project
9	Introduction to Cyber Security	12		swayam	https://onlinecourses.swayam2.ac.in/nou 20_cs02/preview
10	Introduction to internet of things	12		swayam	https://onlinecourses.nptel.ac.in/noc20_c <u>s66/preview</u>

		Lincour		
11	Artificial Intelligence (AI)	12	edX	https://www.edx.org/course/artificial- intelligence-ai
12	Machine Learning with Python: from Linear Models to Deep Learning	15	edX	https://www.edx.org/course/machine- learning-with-python-from-linear-models- to
13	Machine Learning Fundamentals	10	edX	https://www.edx.org/course/machine- learning-fundamentals-2
14	Introduction to Machine Learning	12	swayam	https://onlinecourses.nptel.ac.in/noc20_c s73/preview

#### List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for LEATHER TECHNOLOGY

No	Course name	Duratio	Credit	Name of	link
•		n (weeks)		MOOC website	
1	Learning Analytics Tools	12		swayam	https://onlinecourses.nptel.ac.in/noc20_cs8 9/preview
2	Industrial Safety Engineering	12		swayam	https://onlinecourses.nptel.ac.in/noc20_mg 43/preview
3	Continuous Quality Improvement : Tools and Techniques	12		swayam	https://onlinecourses.swayam2.ac.in/imb20 mg46/preview
4	Air Pollution – a Global Threat to our Health	3		Coursera	https://www.coursera.org/learn/air- pollution-health-threat
5	Data Science for Engineers	8		SWAYAM	https://onlinecourses.nptel.ac.in/noc20_cs7 2/preview
6	Demand and Supply Analytics	12		edX	https://www.edx.org/course/demand-and- supply-analytics
7	Programming for the Internet of Things Project	4		Coursera	<u>https://www.coursera.org/learn/internet-</u> <u>of-things-project</u>
8	Introduction to internet of things	12		swayam	https://onlinecourses.nptel.ac.in/noc20_cs6 6/preview
9	Artificial Intelligence (AI)	12		edX	https://www.edx.org/course/artificial- intelligence-ai
10	Machine Learning with Python: from Linear Models to Deep Learning	15		edX	https://www.edx.org/course/machine- learning-with-python-from-linear-models-to

	Effective for Odd Semester of 2020-21							
11	Machine Learning Fundamentals	10		edX	https://www.edx.org/course/machine- learning-fundamentals-2			
12	Introduction to the Internet of Things (IoT)	6		edX	https://www.edx.org/course/introduction- to-the-internet-of-things-iot			

## List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCS for TEXTILE TECHNOLOGY

Course Name	Duration (weeks)	Credit	Name of the Mooc websites	Availibility
Big Data Analysis with Scala and Spark	4	2	Coursera	Available
Data Science for Engineers	8	3	SWAYAM	Available
Python for Data Science	4	2	SWAYAM	Available
Introduction to the Internet of Things (IoT)	6		Edx	Available
Artificial Intelligence Search Methods For Problem Solving	12	4	SWAYAM	Available
Programming for the Internet of Things Project	4		Coursera	Available
Introduction to Internet of Things	12	4	SWAYAM	Available
Artificial Intelligence (AI)	12		Edx	Available
Principles of Machine Learning: Python Edition	6		Edx	Available
Machine Learning	12		Edx	Available

#### Odd Sem - 2020

## List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21 MOOCs for Apparel & Production Management

Course Name	Duration (weeks)	Credit	Name of the Mooc websites	Availibility
Big Data Analysis with Scala and Spark	4	2	Coursera	Available
Data Science for Engineers	8	3	SWAYAM	Available
Python for Data Science	4	2	SWAYAM	Available
Introduction to the Internet of Things (IoT)	6		Edx	Available
Artificial Intelligence Search Methods For Problem Solving	12	4	SWAYAM	Available
Programming for the Internet of Things Project	4		Coursera	Available
Introduction to Internet of Things	12	4	SWAYAM	Available
Artificial Intelligence (AI)	12		Edx	Available
Principles of Machine Learning: Python Edition	6		Edx	Available
Machine Learning	12		Courser	Available
Science of Clothing Comfort	12	4	SWAYAM	Available

#### Odd Sem - 2020

### List of MOOCs for UG Honours degree (AICTE Programmes) Effective for Odd Semester of 2020-21

# **MOOCs for Bio-Medical Engineering (Hons)**

Course Name	Duration (Weeks)	Credit	Name of the Mooc websites	Status
Biomedical nanotechnology	4	2	Swayam	Active
Computer Aided Drug Design	8	3	Swayam	Active
Demystifying Biomedical Big Data: A User's Guide	8	3	Edx	Active
Introduction to Biomedical Engineering	4	2	Coursera	Active
So You Want to Become a Biomedical Engineer	4	2	edX	Active
Data Science for Engineers	8	3	Swayam	Active
Introduction to Machine Learning	12	4	Swayam	Active
Ultrasounds, X-ray, positron emission tomography (PET) and application	7		Edx	Active
Programming for the Internet of Things Project	4	2	Coursera	Active
Introduction to Internet of Things	12	4	Swayam	Active
Artificial Intelligence (AI)	12	4	Edx	Active
INTRODUCTION TO CYBER SECURITY	12	4	Swayam	Active
Basic Course in Biomedical Research, Cycle 3	12	4	Swayam NPTEL	Active