

Bouquet of MOOCs Courses

Name of the board; Physics

Sl No	Course Area	Title of the MOOCs Course	Course Coordinator	Duration
1	Physics	Waves and Oscillations.	Professor .M.S.Santhanam Indian Institute of Science Education and Research. Pune	12 Weeks
2	Physics	Solid State Physics	Prof. Amal Kumar Das. Indian Institute of Technology Kharagpur	12 Weeks
3	Physics	X-ray Crystallography & Diffraction	Prof. Ranjit Kumar Ray, <u>Indian Institute of Technology Madras.</u> Prof.Sankaran.S <u>Indian Institute of Engineering Science And Technology, Shibpur</u>	12 Weeks
4	Physics	Experimental Physics I	Prof. Amal Kumar Das <u>Indian Institute of Technology, Kharagpur</u>	12 Weeks
5	Physics	Laser: Fundamentals and Applications	Prof. Manabendra Chandra <u>Indian Institute of Technology Kanpur</u>	12 Weeks
6	Physics	Nuclear and Particle Physics	Prof. Poulouse Poulouse <u>Indian Institute of Technology Guwahati</u>	12 Weeks
7	Physics	Computational Physics	Prof. Apratim Chatterji & Prof. Prasenjit Ghosh <u>Indian Institute of Science Education and Research, Pune</u>	12 Weeks
8	Nanotechnology	Selection of Nano materials For Energy Harvesting And Storage Application	Prof. Kaushik P <u>Indian Institute of Technology Roorkee</u>	4 Weeks
9	Electrical Engineering	Semiconductor Optoelectronics	M.R. Shenoy <u>Indian Institute of Technology Delhi</u>	12 Weeks
10	Engineering	Fundamentals of Micro and Nanofabrication	Prof.Shankar Kumar Selvaraja & Prof. Sushobhan Avasti <u>Indian Institute of Technology Bangalore</u>	12 Weeks
11	Material Science	Basics of Materials Engg.	Prof. Ratna Kumar Annabattula	12 Weeks

			Indian Institute of Technology Madras	
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Bouquet of MOOCs Courses

Name of the Board: Chemistry

Sl No	Title of the MOOCs Course	Course Area	Subject Matter Expert (SME)	Course Duration
1	Analytical chemistry	CHEMISTRY	Prof. Debashis Ray, IIT Kharagpur	12 WEEKS
2	Introduction to Polymer Science	CHEMISTRY	Prof. Dibakar Dhara, IIT Kharagpur	8 WEEKS
3	Laser: Fundamentals and Applications	Chemistry	Prof. Manabendra Chandra IIT Kanpur	8 WEEKS
4	Quantum Mechanics And Molecular Spectroscopy	Chemistry	Prof. G Naresh Patwari IIT BOMBAY	8 WEEKS
5	Infrared Spectroscopy for pollution Monitoring	Chemistry	Prof. Mudakev I.I.Sc. Bengaluru	4 WEEKS
6	Advanced Materials and Processes	Chemistry/ Interdisciplinary	Prof. Jayanta Das IIT Kharagpur	12 WEEKS
7	Aqueous Corrosion and Its Control	Chemistry/ Interdisciplinary	Prof. V. S. Raja IIT Bombay	12 WEEKS
8	Defects in Crystalline Solids (Part-I)	Chemistry/ Interdisciplinary	Prof. Varadhan IIT Madras	8 WEEKS
9	Corrosion - Part II	Chemistry/ Interdisciplinary	Prof. Kallol Mondal IIT Kanpur	8 WEEKS
10	Colloids and Surfaces	Chemistry / Interdisciplinary	Prof. Basavaraju IIT Madras	8 WEEKS

Bouquet of MOOCs Courses

Name of the Board: Mathematics

Sl No	Title of the MOOCs Course	Course Area	Subject Matter Expert (SME)	Course Duration
1	Integral Transforms And Their Applications	Mathematics	Prof.Sarthok Sircar Department Of Mathematics, IIT Delhi	12 Weeks
2	Numerical Methods: Finite Difference Approach	Mathematics	Dr. Ameeya Kumar Nayak IIT Roorkee	04 Weeks
3	Linear Regression Analysis And Forecasting	Mathematics	Shalabh IIT Kanpur	04 Weeks
4	Graph Theory	Mathematics	Prof. Soumen Maity Department Of Mathematics IISER Pune	08 Weeks
5	Applied Multivariate Statistical Modeling - Video Course	Mathematics	Dr J Maiti IEM IIT Kharagpur	12 Weeks
6	Regression Analysis	Mathematics	Prof. Soumen Maity Department Of Mathematics IISER Pune	12 Weeks
7	Numerical Solution Of Odes	Mathematics	Prof. M.K. Kadalbajoo Department Of Mathematics And Statistics IIT Kanpur	12 Weeks

Inter-Disciplinary Courses

Sl. No.	Title Of The MOOCs Course	Course Area	Subject Matter Expert (SME)	Course Duration
1	Discrete Mathematics	Interdisciplinary/ Computer Science And Engineering	Prof. Sudarshan Iyengar Dept. Of Computer Science And Engineering IIT Ropar	12 Weeks
2	Computational Fluid Dynamics For Incompressible Flows	Interdisciplinary/ Mechanical Engineering	Prof. Amaresh Dalal Department Of Mechanical Engineering IIT Guwahati	12 Weeks
3	Probability And Random Processes	Interdisciplinary/ Electronics And Communication Engineering	Prof. Prabin K Bora IIT Guwahati	12 Weeks

Bouquet of MOOCs Courses

Name of the Board; Humanities and General Sciences.

SI No	Title of the MOOCs Course	Course Area	Subject Matter Expert (SME)	Course Duration
1	Inkscape	Engg, & Technology	Prof Kannan Moudgalya, IIT BOMBAY	12 WEEKS
2	PERL	Engg, & Technology	Prof Kannan Moudgalya, IIT BOMBAY	12 WEEKS
3	Developing Soft Skills And Personality	Humanities	Prof. T. Ravichandran, IIT KANPUR	8 WEEKS
4	Employment Communication A Lab Based Course	Humanities	Prof. Seema Singh , IIT Kharagpur	8 WEEKS
5	Qualitative Research Methods And Research Writing	Humanities	Prof. Aradhna Malik. IIT Kharagpur	12 weeks
6	Technical English For Engineers	Prof. Aysha Iqbal	IIT Madras	08 week