Format for submission of Bouquet of MOOCs Courses

Name of the Board: Aeronautical/Aerospace Composite Board.

Sl No	Title of the MOOCs Course	Course Area	Subject Matter Expert (SME)	Course Duration	Credits
1	Advanced Aircraft Maintenance	Aerospace Engineering	Mr. VipulMathur, IIT Kanpur.	8 Weeks	2
2	Satellite Attitude Dynamics and Control	Aerospace Engineering	Prof. Manoranjan Sinha, IIT Kharagpur.	12 Weeks	3
3	Drones and Autonomous Systems I: Fundamentals	Science	Brian Powers M.A, University of Maryland.	6 Weeks	2
4	Drones and Autonomous Systems 2: Applications in Emergency Management	Science	Brian Powers M.A, University of Maryland.	6 Weeks	2
5	Hypersonics – from Shock Waves to Scramjets	Engineering	Prof. David J. Mee, University of Queensland.	4 Weeks	1
6	Introduction to Aerospace Engineering: Astronautics and Human Spaceflight	Engineering	Prof. Jeffrey Hoffman, MIT, USA.	8 Weeks	2
7	Flight Vehicle Aerodynamics	Aerospace	Terry J. Kohler, MIT, USA.	16 Weeks	4
8	Human Spaceflight - An introduction	Engineering	Christer Fuglesang, ESA Astronaut.	5 Weeks	2
9	Engineering the Space Shuttle	Engineering	Prof. Jeffrey Hoffman, MIT, USA.	12 Weeks	3

Inter-Disciplinary Courses					
Sl. No.	**Title of the MOOCs course**	**Course area**	**Subject Matter Expert (SME)**	**Course Duration**	**Credits**
1	Transport Phenomena of Non-Newtonian Fluids	Chemical Engineering	Prof. Nanda Kishore, IIT Guwahati.	12 Weeks	3
2	Fluid Flow Operations	Chemical Engineering	Prof. Subrata Kumar Majumder, IIT Guwahati.	12 Weeks	3
3	Thermodynamics Of Fluid Phase Equilibria	Chemical Engineering	Dr. Jayant K. Singh, IIT Kanpur.	8 Weeks	2
4	Design Thinking - A Primer	Management	Prof. BalaRamadurai, IIT Madras.	4 Weeks	1
5	Advanced Engineering Mathematics	Maths	Dr. P. Panigrahi, IIT Kharagpur.	4 Weeks	1
6	Experimental Physics I	Physics	Prof. Amal Kumar Das, IIT Kharagpur.	12 Weeks	3
7	Quantum Mechanics I	Physics	Prof. P. Ramadevi, IIT Bombay.	12 Weeks	3
8	Introduction to Soft computing	CSE	Prof. DebasisSamanta, IIT Kharagpur.	8 Weeks	2
9	Introduction to Water and Climate	Civil	Prof. Brajesh Kumar Dubey, IIT Kharagpur.	10 Weeks	3
10	Climate Science and Policy	Engineering	Andrew Garnett, University of Queensland.	14 Weeks	3
11	Robotics	CSE	MateiCiocarlie, Columbia University.	10 Weeks	3
12	LaTeX for Students, Engineers, and Scientists	Engineering	Prof. Deepak B. Phatak, IIT Bombay,	7 Weeks	2
13	Machine Dynamics with MATLAB	Engineering	Burkhard Corves, RWTH Aachen University.	7 Weeks	2
14	Hyperloop: Changing the Future of Transportation	Engineering	Bart Meeuwissen, Delft University.	6 Weeks	2
15	Philosophy of Science for Engineers and Scientists	Engineering	Prof. Till GruneYanoff, KTH Royal Institute.	20 Weeks	4
16	High Performance Finite Element Modeling	Engineering	Massimiliano Leoni, KTH Royal Institute.	18 Weeks	4
17	Robotics: Vision Intelligence and Machine Learning	CSE	Prof. Jianbo Shi, University of Pennsylvania.	12 Weeks	3
18	Robotics: Dynamics and Control	CSE	Prof. Vijay Kumar, University of Pennsylvania.	12 Weeks	3
19	Launching Breakthrough Technologies	Business	Vish Krishnan, University of California.	6 Weeks	2
20	Advanced Leadership for Engineers: Leading Teams, Organizations and Networks	Business	Hans de Bruijn, Delft University.	5 Weeks	2
21	Machine Learning Fundamentals	Data Analysis & Statistics	SanjoyDasgupta, UC San Diego.	10 Weeks	3
22	Introduction to Artificial Intelligence	CSE	Graeme Malcolm, Microsoft.	4 Weeks	1
23	Data Science and Machine Learning	Data Analysis & Statistics	Rafael Irizarry, Harvard University.	8 Weeks	2
24	Introduction to the Internet of Things (IoT)	CSE	Iain Murray AM, Curtin University	6 Weeks	2

25	Python for Data Science	Data Analysis & Statistics	IlkayAltintas, UC San Diego.	10 Weeks	3
26	Object-Oriented Programming	CSE	Prof. Deepak B. Phatak, IIT Bombay,	4 Weeks	1
27	Model Based Systems Engineering: Foundations	Engineering	Prof. DovDori, Israel X.	5 Weeks	2