



SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under section 3 of the UGC Act, 1956)

Re-Accredited by NAAC with 'A++' Grade | Awarded Category - I by UGC

Founder: Prof. Dr. S. B. Mujumdar, M.Sc., Ph.D. (Awarded Padma Bhushan and Padma Shri by President of India)

Feedback Collection, Analysis and Action Taken Report for A.Y. 2022-23

All the constituent institutes review the program structures every year. They collect the feedback for design and review of curriculum from various stakeholders viz. students, faculty members, alumni and industry experts. Constituent institutes collect feedback from students in every semester while it is collected annually from the faculty members, alumni and industry experts.

Feedback is collected from alumni, industry experts formally or informally when they visit the institutes as guest speakers, committee members or during the events and gatherings. At times, feedback form is also sent to them through online mode.

Feedback thus collected is analysed and discussed in the faculty meetings. The action points based on the feedback are deliberated and approved in institute PRC / IQAC meetings. Proposal for new courses, modification in the existing program structure as well as other academic feedback is proposed to the Board of Studies of the respective Faculty which is then sent to the University Academic Council for approval.

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Each constituent institute collects feedback under the common SIU parameters as given below:

Students Feedback:

S. No	Parameter	Sample Questions
1	Clarity	I was informed about our expected competencies, course outcomes (CO) and programme outcomes (PO)
2	Relevance	The curriculum is relevant to and provides for flexibility to meet my learning needs.
3	Learning	Adequate co-curricular learning opportunities are provided to me to support the curricular learning.
4	Applicability / relevance to real life situations	The course is relevant to the industry requirements.
5	Depth	Depth of the course contents
6	Coverage	The number of hours allocated to the course are adequate.
7	Content	The topics were overlapping with the courses taught earlier / during the semester. If Yes, name such topics with course details
8	Placement of Course	Placement of the course is in appropriate semester. If No, please specify the correct semester

Teachers Feedback:

S. No	Parameter	Sample Questions
1	Flexibility	I am given enough Flexibility to contribute my ideas on curriculum design and development.
2	Support	The faculty members/teachers are supported with adequate learning resources.
3	Motivation	The faculty members/teachers are encouraged to establish linkages with Industry.
4	Relevance	The syllabus is relevant and adequate in terms of scope, depth, and choice to help develop the required competencies amongst students.
5	Knowledge / Research	Would you recommend any new course/topic to be added in the program structure?

Employer/ Industry Experts Feedback:

S.No	Parameter	Sample Questions
1	Holistic	The curriculum has a good blend of theory and practical aspects
2	Knowledge, Skills and Values	The students of the programme are adequately trained in terms of knowledge, skills and values
3	Adaptability	The students of the programme demonstrate the ability to learn new things quickly, to adapt, to the dynamic environment
4	Employability	The courses offered in the Institute have relevance to societal needs and employment potential.
5	Knowledge / Research	Would you recommend any new course/topic to be added in the program structure?

Alumni Feedback:

S. No	Parameter	Sample Questions
1	Applicability/ relevance to real-life situations	The institute curriculum has prepared me adequately for the job roles, I have handled and been handling.
2	Depth	The curriculum of the program is well designed and promotes learning experience of the students.
3	Employability / Growth	The courses offered in the Institute have relevance to societal needs and employment potential.
4	Involvement	The institute encourages contribution from Alumni in curriculum and student development.
5	Knowledge / Research	Would you recommend any new course/topic to be added in the program structure?

Parents Feedback:

S. No	Parameter	Sample Questions
1	Transformation	There is a positive change in the behaviour of my ward after joining the Institute.
2	Employability	The curriculum would make my ward employable and industry ready.
3	Coverage	The curriculum provides a choice of courses/specialization to select.
4	Knowledge / Research	Would you recommend any new course/topic to be added in the program structure?

The parent's feedback is obtained in a few cases and is considered by the respective institutes.

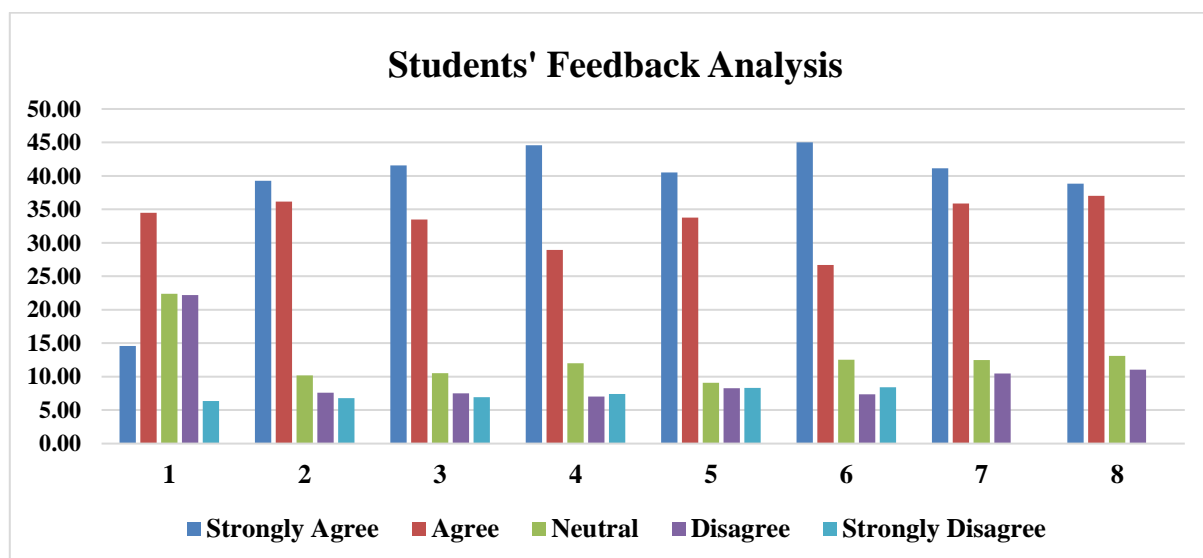
The above exercise was followed for A.Y. 2022-23 and below is the summary of the outcome.

Detailed Feedback analysis and review is as given below:

S. No	Stakeholder	No. of Respondents
1	Students	8695
2	Teachers	1078
3	Employers	706
4	Alumni	861

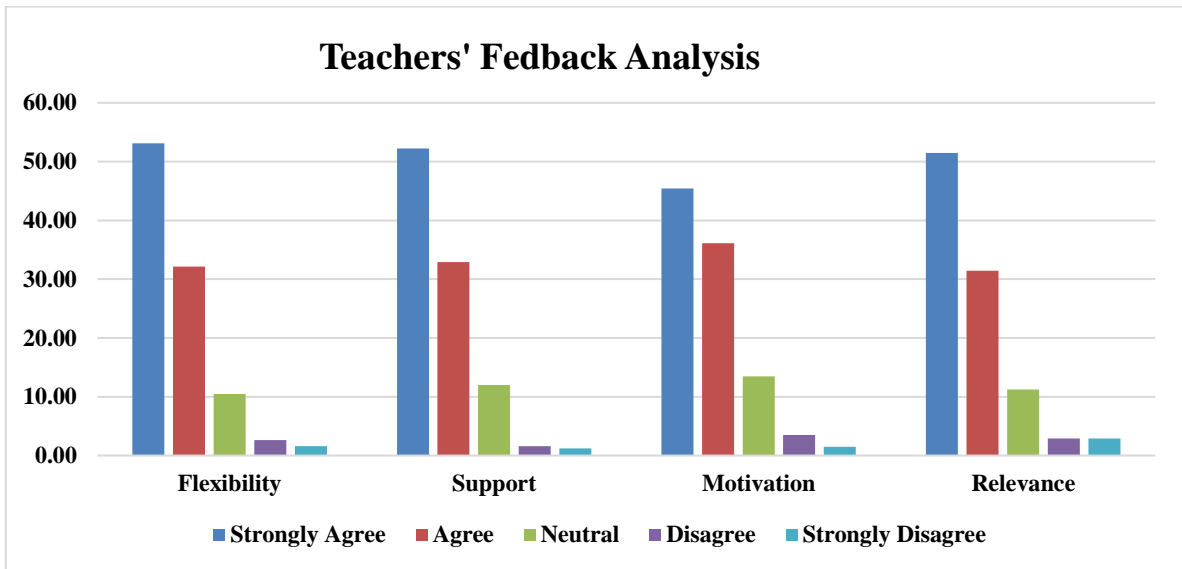
Students Feedback %

Parameter	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Content	14.59	34.50	22.36	22.18	6.36	100.00
Clarity	39.26	36.16	10.21	7.60	6.77	100.00
Relevance	41.55	33.46	10.54	7.52	6.94	100.00
Learning	44.60	28.94	12.02	7.01	7.42	100.00
Applicability / relevance to real life situations	40.54	33.78	9.07	8.30	8.31	100.00
Coverage	45.00	26.69	12.55	7.35	8.42	100.00
Depth	41.16	35.85	12.49	10.49	0.00	100.00
Placement of the Course	38.84	37.01	13.11	11.04	0.00	100.00



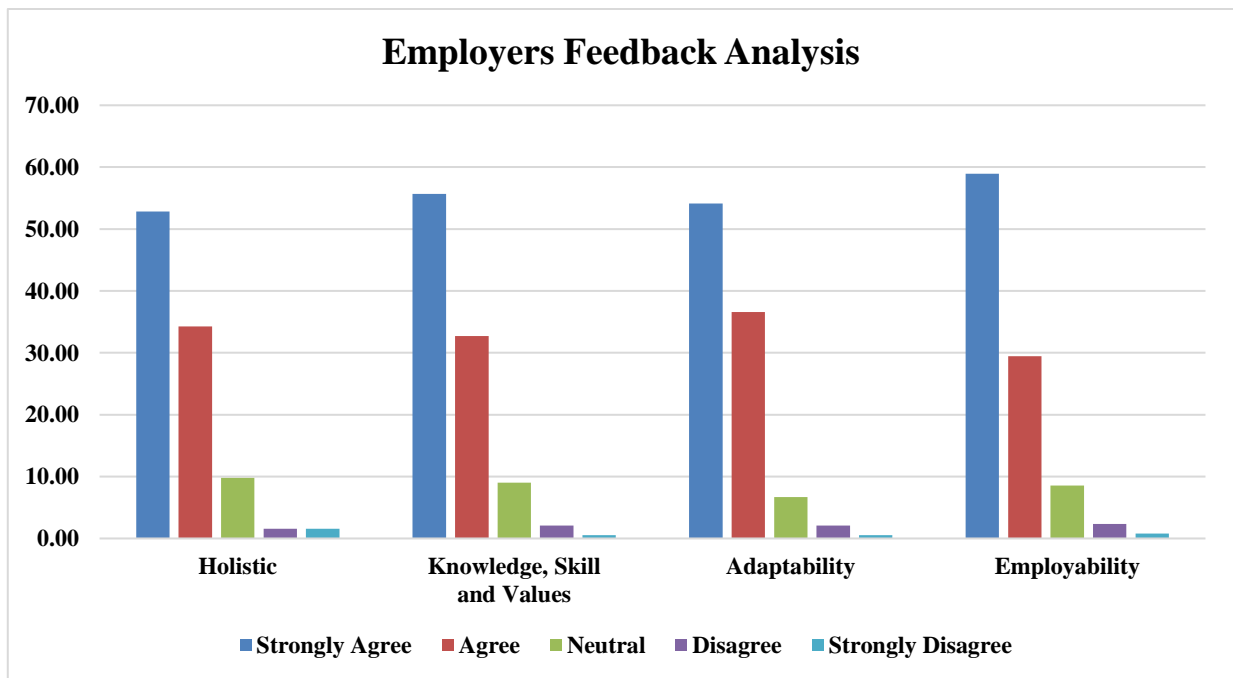
Teachers Feedback %

Parameter	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Flexibility	53.13	32.16	10.48	2.64	1.59	100
Support	52.25	32.92	12.00	1.59	1.24	100
Motivation	45.42	36.09	13.47	3.52	1.50	100
Relevance	51.46	31.44	11.25	2.92	2.92	100



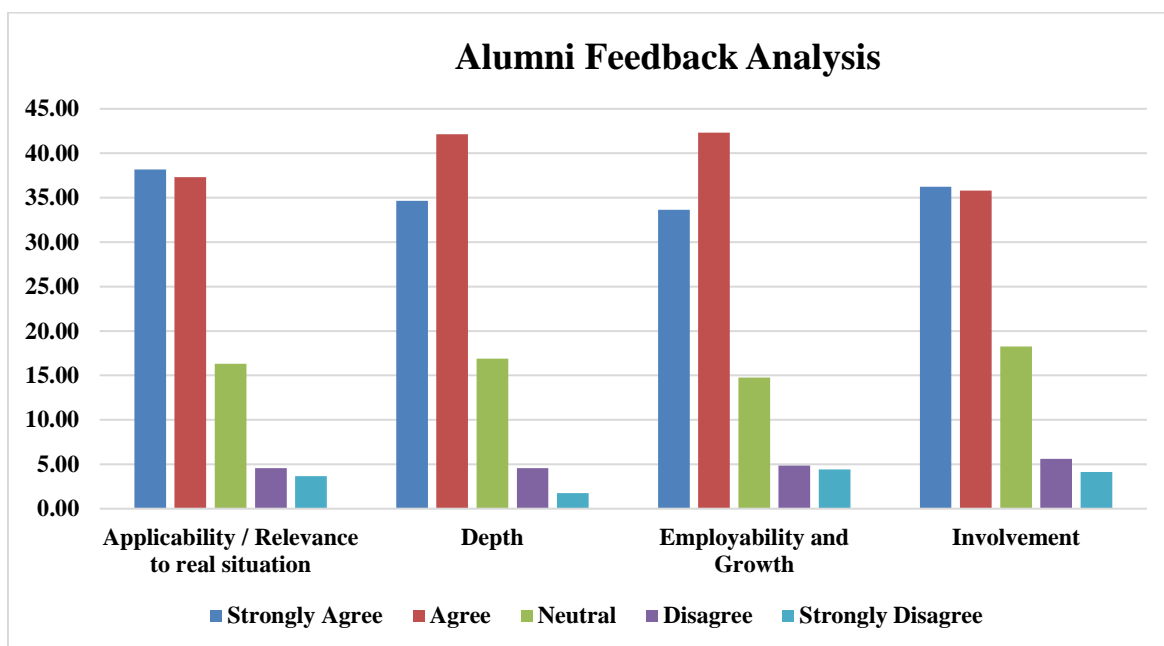
Employers Feedback %

Parameter	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Holistic	52.84	34.28	9.79	1.55	1.55	100
Knowledge, Skill and Values	55.67	32.73	9.02	2.06	0.52	100
Adaptability	54.12	36.60	6.70	2.06	0.52	100
Employability	58.91	29.46	8.53	2.33	0.78	100



Alumni Feedback Analysis

Parameter	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Applicability / Relevance to real situation	38.18	37.30	16.30	4.55	3.67	100
Depth	34.65	42.14	16.89	4.55	1.76	100
Employability and Growth	33.63	42.33	14.75	4.87	4.42	100
Involvement	36.23	35.79	18.26	5.60	4.12	100



Summary of the suggestions/recommendations received from stakeholders:

1. Few topics to be added to the syllabi
2. Few new courses to be added in the curriculum
3. Few courses to be removed from the syllabi
4. More industry/field visits were recommended
5. Some pedagogical changes were suggested
6. Some workshop/webinar topics of emerging areas were recommended

Institutes analysed the above suggestions. It was found that some of the inputs were actionable and the respective institutes followed the process to incorporate them in the curriculum. The actions included the following for A.Y. 2022-23:

1. 336 new courses were introduced
2. 68 program structures were modified
3. Institutes have planned more industry interaction / field visits/workshops/webinars

List of New Courses Introduced:

S.No.	Catalog Course Code	Title of the Course
1	T1728	Certificate Programme on Taxation Law
2	T1729	Certificate Program in Critical Thinking Skills and Collaborative Problem-Solving Skills
3	T1730	Certificate Programme in European Union Climate Justice Law, Governance, Management and Policy
4	T1731	Legal Environment of Doing Business in EU
5	T1732	Principles and Foundations of EU Law
6	T1733	Public International Law
7	TM2106	Banking and Fintech
8	TM2107	Cyber Security, Data Privacy and Forensics for Banks
9	TM2108	Business Leadership
10	TM2109	Employee Welfare
11	TM2110	Environment Management Systems and Audits
12	TM2111	ESG and Sustainable Finance
13	T3699	AI applications in social media
14	T3700	Deep learning
15	T3716	Generative Adversarial Networks
16	T3717	Graph Theory
17	T3718	Knowledge Graphs
18	T3719	Natural Language Processing
19	T3720	Web Performance Analysis
20	T3721	Access Control and VAPT
21	T3722	Cloud Security
22	T3723	Data Privacy and Protection
23	T3724	Business Model Innovations
24	T3725	Cloud Administration
25	T3726	Cloud and AI
26	T3727	Cloud Programming and Application Development
27	T3728	Digital Leadership
28	T3729	Digital Technology Transformation
29	T3730	Fog Computing
30	T3731	Total Experience Strategy
31	T3732	Business Process Management
32	T3733	IT Consulting

33	T3734	CRM Systems
34	T3735	Business Process Mining
35	T6925	Cultural and Heritage Education
36	T6926	Dictionary making across Indian languages
37	T6927	Africa: Culture , Ethnicity and Shifting Identities
38	T6928	Area Studies- Defense and Security - Northern Africa
39	T6929	Area Studies- Defense and Security -Central Africa
40	T6930	Area Studies- Defense and Security -Island Nations
41	T6931	Area Studies- Defense and Security -Southern Africa
42	T6932	Area Studies- Defense and Security-Eastern Africa
43	T6933	Area Studies- Defense and Security-West Africa
44	T6934	Area Studies- Extra-Regional Power Dynamics - Northern Africa
45	T6935	Area Studies- Extra-Regional Power Dynamics -Central Africa
46	T6936	Area Studies- Extra-Regional Power Dynamics -Eastern Africa
47	T6937	Area Studies- Extra-Regional Power Dynamics -Island Nations
48	T6938	Area Studies- Extra-Regional Power Dynamics -Southern Africa
49	T6939	Area Studies- Extra-Regional Power Dynamics -West Africa
50	T6940	Area Studies- Foreign Policy -Central Africa
51	T6941	Area Studies- Foreign Policy -Eastern Africa
52	T6942	Area Studies- Foreign Policy -Island Nations
53	T6943	Area Studies- Foreign Policy- Northern Africa
54	T6944	Area Studies- Foreign Policy -Southern Africa
55	T6945	Area Studies- Foreign Policy-West Africa
56	T6946	Area Studies- Political Economy - Island Nations
57	T6947	Area Studies- Political Economy - Northern Africa
58	T6948	Area Studies- Political Economy -Central Africa
59	T6949	Area Studies- Political Economy -Southern Africa
60	T6950	Area Studies- Political Economy -West Africa
61	T6951	Area Studies- Political Economy-Eastern Africa
62	T6952	Area Studies- Political Processes and Structures - West Africa
63	T6953	Area Studies- Political Processes and Structures -Eastern Africa
64	T6954	Area Studies- Political Processes and Structures -Island Nations

65	T6955	Area Studies- Political Processes and Structures -Northern Africa
66	T6956	Area Studies- Political Processes and Structures -Southern Africa
67	T6957	Area Studies- Political Processes and Structures-Central Africa
68	T6958	Contemporary Geo-Economics of Africa
69	T6959	Historical perspective of Africa
70	T6960	International Organizations: An African Perspective
71	T6961	International Relations from an African Perspective
72	T6962	Introduction to Geo-Economics in Africa
73	T6963	Risk Analysis for Africa
74	T6964	Security Paradigm in the African Region
75	T6965	Actuarial Statistics
76	T6966	Calculus for Data Science
77	T6967	Data Science I
78	T6968	Data Science II
79	T6969	Data Visualization
80	T6970	Database Management System
81	T6971	Design and Analysis of Sample Survey Techniques
82	T6972	Designs of Experiments and Analysis
83	T6973	Discrete Mathematics
84	T6974	Global Citizenship: World is one family
85	T6975	Hypothesis Testing
86	T6976	Introduction to R
87	T6977	Lilavati
88	T6978	Mathematics for Data Science
89	T6979	Numerical Methods
90	T6980	Probability Distributions
91	T6981	Probability Theory
92	T6982	Resampling
93	T6983	Statistical Data Analysis Using Microsoft Excel
94	T6984	Statistical Data Analysis-I
95	T6985	Statistical Data Analysis-II
96	T6986	Statistical Inference
97	T6987	Statistical Machine Learning
98	T6988	Text Mining

99	TE7893	Data Visualization Tools and Software
100	TE7894	Exploratory Data Analysis
101	TE7895	Fundamentals of Multimodal AI
102	TE7896	Fundamentals of Multimodal AI Lab
103	TE7897	Fundamentals of Responsible AI
104	TE7898	Fundamentals of Responsible AI Lab
105	TE7899	Generative Adversarial Networks and Applications
106	TE7900	Generative Adversarial Networks and Applications Lab
107	TE7901	Graph Neural Networks
108	TE7902	Implementations and Use Cases of Machine Learning Lab
109	TE7903	Introduction to Deep Learning
110	TE7904	Introduction to Deep Learning Lab
111	TE7905	Machine Learning and Bioinspired Optimization Techniques
112	TE7906	Machine Vision
113	TE7907	Machine Vision Lab
114	TE7908	Natural Language Processing and Applications
115	TE7909	Natural Language Processing and Applications Lab
116	TE7910	Reinforcement Learning and Applications
117	TE7911	Reinforcement Learning and Applications Lab
118	TE7912	Supervised Machine Learning and Advances
119	TE7913	Supervised Machine Learning and Advances Lab
120	TE7914	Unsupervised Machine Learning and Advances
121	TE7915	Unsupervised Machine Learning and Advances Lab
122	TE7916	Cloud Computing Tools and Techniques
123	TE7917	Quantitative Techniques
124	TE7918	Research Ethics and Integrity
125	TE7919	Research Methodology and Techniques
126	TE7920	Advance Python Programming for spatial Analytics
127	TE7921	Advance Python Programming for Spatial Analytics Lab
128	TE7922	Applied Statistics
129	TE7923	Applied Statistics Lab
130	TE7924	Citizen Science and Geospatial Technology
131	TE7925	Geospatial Analytics
132	TE7926	Global Navigation Satellite System
133	TE7927	Global Navigation Satellite System Lab

134	TE7928	Global Navigation Satellite Systems
135	TE7929	Machine Learning for Remote sensing
136	TE7930	Programming for computational sciences
137	TE7931	Python for Data Science
138	TE7932	Python for Geospatial Technology
139	TE7933	Python for Geospatial Technology Lab
140	TE7934	Research Methodology in Computational Sciences
141	TE7935	Research Paper Writing
142	TE7936	Spatial Database Management Lab
143	TE7937	Spatial database management system
144	TH4459	Rooms Division Operations - I (Practical)
145	T1734	Insolvency and Bankruptcy Law
146	T1735	Gender Justice and Feminist Jurisprudence
147	T1736	Contemplative Lawyering(Yoga, Meditation, Self Healing, Justice and Healing)
148	T1737	Labour and Industrial Law
149	T1738	Optimizing Assessment for 21st Century Skills
150	T1739	Authentic learning tasks: practical implementation of the skills in the classroom
151	T1740	Education Technology skills (based on the Technological Pedagogical Content Knowledge)
152	T1741	Trade and Services in Emigration
153	TM2112	Neuromarketing
154	TM2113	Introduction to Marketing Analytics
155	TM2114	Transportation Economics
156	TM2115	Six Sigma
157	TM2116	Circular Design Thinking
158	TM2117	Supply Chain and Trade Finance
159	TM2118	Behaviourial Operations Management
160	TM2119	Humanitarian Supply Chain Management
161	TM2120	Maintenance Management
162	T3736	Deep Learning
163	T3737	Introduction to E-Business Technology
164	T3738	Software Quality Practices
165	T3739	Agile Methodologies
166	T3740	Software Engineering
167	TH4460	Comprehensive Management Plans in Mental Health

168	TH4461	Modalities of Interventions in Mental Health
169	TH4462	Nutrition and Fertility
170	TH4463	Research Applications in Food Industry
171	TH4464	Statistics for Sports
172	TH4465	Talent Management and Scouting in Basketball and Volleyball
173	TH4466	Talent Management and Scouting in Racquet Sports
174	TH4467	Talent Management and Scouting in Cricket
175	TH4468	Talent Management and Scouting in Football
176	TH4469	Management of Basketball and Volleyball
177	TH4470	Management of Racquet Sport
178	TH4471	Management of Cricket
179	TH4472	Management of Football
180	TH4473	Event Implementation for Sports
181	TH4474	Business Communication
182	TH4475	Academic Writing
183	TH4476	Sports and Corporate Fitness Management
184	TH4477	Operations Management for Sports
185	TH4478	Introduction to Event Management in Sports
186	TH4479	Introduction to Sports Marketing
187	TH4480	Capstone- Business Plan
188	TH4481	Advanced Business Communication
189	TH4482	Sports Infrastructure and Management
190	TH4483	Athlete Management
191	TH4484	Sports Consultancy
192	TH4485	Introduction to Brand Management
193	TH4486	Basics of MS Office
194	TH4487	Introduction to Performance Management
195	TMC5108	Rotoscopy Animation
196	TMC5109	Documentary Filmmaking
197	TMC5110	Automobile Photography
198	TMC5111	Pixilation and Stop motion
199	TMC5112	Emerging Editing Techniques
200	TMC5113	Cinematic Lighting basics
201	TMC5114	Storyboarding
202	TMC5115	Rise of Street Photography

203	TMC5116	Lighting for product photography
204	TMC5117	Conceptual Photography
205	TMC5118	Interior and Architectural Photography
206	TMC5119	Colour Theory and Composition
207	TMC5120	Images, Lensing and Space
208	TMC5121	Fundamentals of Product Photography
209	TMC5122	Fashion Photography fundamentals
210	TMC5123	Introduction to Photojournalism
211	TMC5124	Visual Lensing
212	TMC5125	Introduction to Visual Aesthetics
213	TMC5126	Global Culture and Emerging Issues
214	T6989	Biological Anthropology
215	T6990	Economic Anthropology and Value-centred Praxis
216	T6991	Reading Ethnography Through the Ages
217	T6992	Creative Thinking
218	T6993	Conversational Skills in Korean
219	T6994	What on Earth! World History and Geography
220	T6995	Reading the Past: Texts in History
221	T6996	Through the Golden Gates: History of the Americas
222	T6997	African Dreams: From Colonialism to Statehood and Beyond
223	T6998	Anthropology Today: Its Application
224	T6999	Socio-Cultural Anthropology 2
225	THM6001	Socio-Cultural Anthropology 1
226	THM6002	What is Anthropology?
227	THM6003	Beginner's Course in Marathi
228	THM6004	An Introduction to the Study of Foreign Policy of the United States of America in the Post-Cold War World
229	THM6005	Humour Studies: An Interdisciplinary Introduction
230	THM6006	Indian Contemporary Dance: Techniques and Choreography
231	THM6007	Educational Psychology
232	THM6008	Big Data Analytics
233	THM6009	Statistical Simulation for Geo-Spatial data
234	THM6010	Geo-Spatial Analysis
235	THM6011	Geo-Spatial Machine Learning
236	TE7938	Applied Statistics and Numerical Methods

237	TE7939	Applied Statistics and Numerical Methods Lab
238	TE7940	MLOps Lab
239	TE7941	MLOps
240	TE7942	Full Stack Development Lab
241	TE7943	Full Stack Development
242	TE7944	Big Data Analytics Lab
243	TE7945	Big Data Analytics
244	TE7946	Design and Analysis of Algorithms Lab
245	TE7947	Information and Network Security Lab
246	TE7948	Introduction to Cloud Computing
247	TE7949	Cloud Computing Tools and Techniques Lab
248	TE7950	DevOps Lab
249	TE7951	DevOps
250	TE7952	User Interface and Experience Design
251	TE7953	Information and Network Security
252	TE7954	Introduction to Information Retrieval
253	TE7955	Introduction to AR/VR
254	TE7956	Design and Analysis of Algorithms
255	TE7957	Computer Networks Lab
256	TE7958	Computer Networks
257	TE7959	Data Structures Lab
258	TE7960	Data Structures
259	TE7961	CAD & CAM
260	TE7962	Finite Element Methods
261	TE7963	Structural Dynamics and Non Linear Analysis Lab
262	TE7964	Programming Tools (Python)
263	TE7965	Mechatronics and IoT Lab
264	TE7966	Mechatronics and IoT
265	TE7967	Modelling and Simulation Lab
266	TE7968	PLC Programming Lab
267	TE7969	Smart Manufacturing and Digital Twins Lab
268	TE7970	Cyber Physical Security Lab
269	TE7971	Modelling and Simulation
270	TE7972	Additive Manufacturing Lab
271	TE7973	Power Electronics for Automobile Lab

272	TE7974	Power Electronics for Automobile
273	TE7975	Materials for Automobile
274	TE7976	Automotive Engineering Systems
275	TE7977	Micro Electro Mechanical Systems
276	TE7978	Battery Management Systems
277	TE7979	Automotive HVAC
278	TE7980	Powertrain Management Systems
279	TE7981	Drone & Hyperloop Technology
280	TE7982	Vehicle Fault Diagnostics
281	TE7983	Deep Neural Networks for Automotive Applications
282	TE7984	Future Mobility Solution
283	TE7985	Automotive Safety and Cyber Security
284	TE7986	Vehicle Dynamics and Control
285	TE7987	Autonomous and Connected Vehicles
286	TE7988	Automotive Electrical and Electronic Systems
287	TE7989	Electric and Hybrid Vehicles
288	TE7990	Testing and Certification of Automobile
289	TE7991	Automotive Embedded System
290	TE7992	In Vehicle Networking
291	TE7993	Plug-in Electric Vehicles in Smart Grid
292	TE7994	Vehicle Electronic Control Management System
293	TE7995	Automotive AI Lab
294	TE7996	Electric Drives and Control
295	TE7997	Automotive AI
296	TE7998	EV Noise Vibration and Harshness Lab
297	TE7999	EV Noise Vibration and Harshness
298	TEE7001	Modelling and Simulation of EHV
299	TEE7002	Structural Non Linear and 3D Analysis Lab
300	TEE7003	Software Tools For Mechanical Engineering
301	TEE7004	Computer Aided Design I Lab
302	TEE7005	Computer Aided Design II Lab
303	TEE7006	CAD& CAM Lab
304	TEE7007	Pressure Vessel Design
305	TEE7008	Machine Design - II Lab
306	TEE7009	Machine Design - II

307	TEE7010	Machine Design - I Lab
308	TEE7011	Machine Design - I
309	TEE7012	Finite Element Methods Lab
310	TEE7013	Simulator for Robotics Lab
311	TEE7014	Industrial Internet of Things Lab
312	TEE7015	Hydraulics and Pneumatics for Robots Lab
313	TEE7016	Application of AI in Robotics and Automation Lab
314	TEE7017	Robotic Control Systems Lab
315	T8710	Product and Space Ergonomics
316	T8711	Fashion Design and Accessories
317	T8712	Innovative Craft and Painting Techniques
318	T8713	Innovative Design Processes
319	T8714	3D Explorations and Material Handling
320	T8715	Expressions through Performing Arts
321	T8716	Mini Project 2 - Video Film Design
322	T8717	Mini Project 1 - Video Film Design
323	T8718	Elements of Cinematography
324	T8719	Animation Film Project - 3
325	T8720	Animation Film Project - 2
326	T8721	Advanced Classical Animation
327	T8722	Post Production
328	T8723	Graphic Design - Film Media
329	T8724	Digital Design Tools - Film Media
330	T8725	Production Art Design
331	T8726	Sound Design
332	T8727	Elements of Editing
333	T8728	Elements of Direction
334	T8729	Pre-Production Design
335	T8730	Film Language
336	T8731	Cinema Appreciation
