



Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

MoE, UGC & AICTE Approved

NAAC A++ Accredited

17.4.2 Education for SDGs: specific courses on sustainability

2021-22 ODD Semester									
S. No	Course Code	Name of the Course	Percentage of SDG content in syllabus						
			Zero Hunger	Good Health and Well-Being	Quality Education	Gender Equality	Clean Water and Sanitation	Affordable and Clean Energy	Sustainable Cities and Communities
1	18AG2029	Principles of Organic Farming	100	80	100		50	50	25
2	21AG1001	Fundamentals of Agronomy-2021 B.Sc Agri A	100	75	100				
3	18AG2005	Livestock and Poultry management	100	70	100				
4	18AG2024	Precision Farming	100	50	100		50	50	75
5	21AG3216	Soil Fertility and Fertilizer Use	100	50	100		25		
6	18AG2002	Crop Production Technology - I (Kharif Crops)	100	50	100				
7	18HO1003	Propagation and Nursery Management for Horticultural Crops	100	50	100				

8	18HO2013	Principles of Ornamental Horticulture and Landscape Architecture	100	50	100				
9	18HO2015	Breeding of Fruits, Spices and Plantation Crops	100	50	100				
10	18HO2018	Introduction to Major Field Crops	100	50	100				
11	21HO1251	Fundamentals of Horticulture-2021 B.Sc Agri A	100	50	100				
12	21HO3127	Growth and Development of Horticultural Crops	100	50	100				
13	21HO3130	Propagation and Nursery Management of Fruit Crops	100	50	100				
14	18AG2018	Practical Crop Production (Kharif crops)	100	25	100				
15	18HO2016	Seed production of Vegetable, Tuber and Spice Crops	100		100				
16	21AG3002	Principles and Practices of Soil Fertility and Nutrient Management	100		100				
17	21AG3005	Agro-Meteorology and Crop Weather Forecasting	100		100				
18	20AG2009	Production Technology of Vegetables and Spices	90	25	100				
19	18AG2021	Diseases of Field and Horticultural Crops and their Management -I	80	80	100				
20	18HO2017	Insect Pests of Vegetable, Ornamental and Spice Crops	80	80	100				

21	18AG2023	Pests of Crops, Stored Grains and their Management	80	50	100	-	60	70	70
22	20BT3010	Agricultural and Food Biotechnology	100	20					
23	21AG1002	Agricultural Heritage-2021 B.Sc Agri A	75	75	100				
24	21AG1501	Fundamentals of Plant Biochemistry and Biotechnology-2021 B.Sc Agri A	75		100				
25	21AG3224	Intellectual Property and its Management in Agriculture	75		100				
26	18AG2020	Manures, Fertilizers and Soil Fertility Management	70	50	100	-	25		
27	18AG2022	Principles of Integrated Pest and Disease Management	60	60	100				
28	18AG2015	Environmental Studies and Disaster Management	50	100	100	10	100	100	100
29	18HO2019	Economics and Marketing	50	75	100				
30	21AG1301	Fundamentals of Soil Science-2021 B.Sc Agri A	50	50	100		50		
31	20HO2019	Rural Horticultural Work Experience (RHWE)	50	50	100				
32	18AT2049	Applications of Solar and Wind Energy in Agriculture	50	25	100			100	
33	18AT2006	Farm Machinery and Equipment-II	50		100				
34	18AT2007	Field Operation and Maintenance of Tractors and Farm Machinery	50		100				20

35	21AG3025	Principles of Genetics	50		100				
36	21AG3026	Principles of Cytogenetics	50		100				
37	21AG3028	Principles of Quantitative Genetics	50		100				
38	21AG3214	Plant Biochemistry	50		100				
39	21AG3215	Principles of Plant Physiology	50		100				
40	18AT2027	Ergonomics, Human Engineering and Safety in Agricultural Machinery	25	100	20	25		25	25
41	18AG2003	Agricultural Finance and Cooperation	100	100	100	100	100		100
42	21AG3001	Modern Concepts in Crop Production	100	100	100				100
43	21AG3006	Cropping Systems and Sustainable Agriculture	100	100	100				100
44	21AG3008	Agronomy of Major Cereals and Pulses	100	100	100				100
45	21AG3009	Agronomy of Oilseed, Fiber and Sugar crops	100	100	100				100
46	18AG2019	Crop Improvement I (Kharif crops)	95	70	70		70		80
47	20FP2006	Applied Food Microbiology	0	100	0	0	0	0	0
48	18FP2031	Plantation and Spices Product Technology	0	50	100	0	0	0	0
49	18ME2060	Industrial Safety Engineering	0	40	100	0	10	30	10
50	20FP3001	Mass Transfer and Separation Techniques in Food Processing	0	40	100	0	0	20	0
51	21ME3015	Ergonomics in Bio-Medical Instrumentation	0	40	100	0	0	0	0

52	18ME2073	Modern Manufacturing Techniques	0	30	100	0	10	20	10
53	18ME2057	Welding Technology	0	30	100	0	10	10	10
54	20ME1007	3D Printing Technology	0	30	100	0	10	0	0
55	20ME3001	Additive Manufacturing Technologies	0	30	100	0	10	0	0
56	18ME2014	Solid Mechanics	0	30	100	0	0	5	5
57	20ME3008	Non-Destructive Testing and Inspection	0	30	100	0	0	0	20
58	18ME2047	Power Plant Engineering	0	20	100	0	10	10	10
59	20ME3011	Materials and Characterization Techniques	0	20	100	0	0	0	0
60	19ME2002	Industrial Practice - IV (Smart Engine, Transmission Technologies and Brake Dynamics)	0	10	100	0	0	30	10
61	19ME2020	Drone Technology	0	10	100	0	0	0	20
62	20ME3002	Intelligent Robotics systems in Manufacturing	0	10	100	0	0	0	0
63	20ME3003	Internet of Things in Manufacturing	0	10	100	0	0	0	0
64	20ME3009	New-Age Materials	0	10	100	0	0	0	0
65	21ME3016	Microcontrollers for Sensor Control and Interfaces	0	10	100	0	0	0	0
66	18ME1001	Engineering Drawing	0	0	100	0	20	0	0
67	18ME1002	Engineering Graphics (AutoCAD)	0	0	100	0	20	0	0
68	20ME1009	Engineering Drawing and Graphics-2021 B.Tech BME A	0	0	100	0	20	0	0

69	20ME2016	Fluid Mechanics and Fluid Machines	0	0	100	0	20	0	0
70	20FP3022	Food Supply Chain Management	0	0	100	0	0	0	20
71	18ME2035	Technical Aptitude	0	0	100	0	0	0	0
72	18ME2050	Finite Element Analysis	0	0	100	0	0	0	0
73	20FP2001	Food Process Calculations	0	0	100	0	0	0	0
74	20FP3018	Emerging Trends in Food Process Engineering	0	0	100	0	0	0	0
75	20ME1003	Soft skills-2021 B.Tech Mech A	0	0	100	0	0	0	0
76	20ME3998	Dissertation Phase I	0	0	100	0	0	0	0
77	21ME3003	Design for Manufacture and Assembly	0	0	100	0	0	0	0
78	20AG1012	Physical Education		100	100				
79	17EC3078	Medical Signal Processing		100					
80	19RO2009	Medical Robotics		100					
81	21BT1001	Fundamentals of Biology- (Combined Class)		100					
82	20AG1010	Human Values and Ethics - 2021 B.Sc Agri A		50	100	50			
83	18AT2040	Educational Tour		50	100				
84	18HO2014	Dry Land Horticulture		50	100				
85	18AT2037	10-Weeks Industrial Attachment/Internship(Student READY)		50	100				
86	18AT2039	Skill Development Training-II		50	100				
87	20AG2001	Rural Agricultural Work Experience (RAWWE)		25	100		25	25	

88	21AG3222	Library and Information Services		25	100				
89	18AT2036	Skill Development Training-I		25	100				
90	20PH1011	Physical Electronics-2021 B.Tech ECE (AI)		20				100	
91	18AG2026	Intellectual Property Rights		40	100				
92	18AT2009	Soil and Water Conservation Engineering			100		50		
93	18AT2010	Fundamentals of Renewable Energy Sources			100			100	50
94	18EC3026	Internet of Things			100				100
95	18EI2002	Control Systems			100				30
96	17AE3022	Elements of Aerospace Engineering			100				
97	17BC2017	E-Commerce			100				
98	17MC2011	Basics of Multimedia			100				
99	17MC2034	Media Agencies			100				
100	17MC2036	Radio Programming			100				
101	17MC3001	Research Methodology			100				
102	17MC3016	Media Analysis			100				
103	17MC3025	Lab Journal			100				
104	17PH2007	Semiconductor Logic Devices			100				
105	18AE2014	Gas dynamics			100				
106	18AE2016	Aerospace Structures-II			100				
107	18AE2018	Propulsion-II			100				
108	18AE2019	Aircraft Stability and Control			100				
109	18AE2036	Introduction to Non Destructive Testing			100				
110	18AE2041	Advanced Space Dynamics			100				

111	18AE2045	Basics of Aerospace Engineering			100				
112	18AG2006	Agri Informatics			100				
113	18EC2021	Microwave and Optical Communication			100				
114	18EC3003	Wireless and Mobile Communication			100				
115	18PA2015	Indirect Tax			100				
116	19BC2002	Indian Financial System			100				
117	19EC2029	Data Science and Data analytics			100				
118	19EC2050	Sensors for IoT Applications			100				
119	20AE2001	Introduction to Aerospace Engineering-2021 B.Tech Aero A			100				
120	20AE2004	Computer Aided Aircraft Drawing			100				
121	20AE2005	Strength of Materials			100				
122	20AE2007	Engineering Thermodynamics			100				
123	20AE2009	Aerodynamics			100				
124	20AE2055	Space Systems Engineering			100				
125	20BC2001	Financial Accounting -I - (Combined Class)			100				
126	20BC2002	Business Organization and Management -(Combined Class) Batch 2			100				
127	20BC2003	Business Economics - (Combined Class)			100				
128	20BC2004	Marketing Management- (Combined Class) Batch 2			100				

129	20BC2008	Corporate Laws			100				
130	20BC2009	Advanced Accounting			100				
131	20BC2010	Income Tax			100				
132	20BC2013	Business Research Methods			100				
133	20BC2034	Data Analytics Fundamentals			100				
134	20BC2037	Introduction to Financial Markets -2021 B.Com (Banking)			100				
135	20BC2038	NSE Learn To Trade -2021 B.Com (Banking)			100				
136	20BC2041	Derivatives Market			100				
137	20BC2042	Mutual Fund Management			100				
138	20BC2043	Smart Trading Fundamental Analysis			100				
139	20CR2001	Introduction to Criminology-2021 BA Criminology A			100				
140	20CR2002	Contemporary Forms of Crime-2021 BA Criminology A			100				
141	20CR2010	Victimology			100				
142	20CR2011	Indian Penal Code and Indian Evidence Act			100				
143	20CR2012	Child Protection			100				
144	20CR2013	Practical			100				
145	21AE3001	Advanced Aerodynamics			100				
146	21AE3002	Advanced Structural Analysis			100				
147	21AE3005	Elements of Data Analytics			100				
148	21AE3011	Simulation and Model based Systems Engineering			100				

149	21AE3012	Aviation 4.0			100				
150	21AE3019	Gas Turbine Technology			100				
151	21AE3020	Rotor Dynamics			100				
152	21AG3217	Experimental Designs			100				
153	21AG3223	Technical Writing and Communications Skills			100				
154	21CR3001	Theoretical Criminology-2021 M.Sc Applied Criminology			100				
155	21CR3002	Contemporary Crimes-2021 M.Sc Applied Criminology			100				
156	21CR3003	Forensic Analysis in Crime Scene Investigation-2021 M.Sc Applied Criminology			100				
157	21CR3004	Criminal Law -2021 M.Sc Applied Criminology			100				
158	21CR3005	Research Methodology and Statistics in Criminology-2021 M.Sc Applied Criminology			100				
159	21CR3006	Outdoor Training-2021 M.Sc Applied Criminology			100				
160	21AG1003	Introduction to Forestry-2021 B.Sc Agri A			100				
161	18EE3003	Energy Management and Audit						100	
162	18EE3012	Grid Converters for Solar and Wind Power Systems						100	
163	18EE3016	Data Mining for Renewable Energy Systems						100	
164	18EE3022	Electric and Hybrid Vehicles						100	

165	19EE2002	Smart Grid						100	
166	19EE2021	Energy Storage in Power Systems						100	
167	19EE2032	Basics of Electric and Hybrid Vehicle						100	
168	20RO3014	Industrial Internet of Things and its Applications							100
2021-22 Even Semester									
S. No	Course Code	Name of the Course	Percentage of SDG content in syllabus						
			Zero Hunger	Good Health and Well-Being	Quality Education	Gender Equality	Clean Water and Sanitation	Affordable and Clean Energy	Sustainable Cities and Communities
1	18FP2037	Process Economics and Plant Layout Design	100	100	100	0	40	20	20
2	18AG2035	Principles of Food Sciences and Nutrition	100	100	100		100		
3	18FP2019	Cereals and Pulses Processing Technology	100	100	0	0	0	0	0
4	21AG3007	Dryland Farming and Watershed Management	100	50	100		50		25
5	18AG2010	Production Technology for Fruits and Plantation Crops	100	50	100				
6	18AG2011	Principles of Seed Technology	100	50	100				
7	18HO2021	Post-harvest Management and Processing of Horticultural Crops	100	50	100				

8	18HO2024	Apiculture, Sericulture and Lac Culture	100	50	100				
9	20AG1002	Introductory Agro-Meteorology & Climate Change	100	50	100				
10	20AG2010	Production Technology for Ornamental Crops, Map and Landscaping	100	50	100				
11	21AG3010	Agronomy of Fodder and Forage Crops	100	50	100				
12	21HO1270	Production Technology for Fruit and Plantation Crops-2021 B.Sc Agri A	100	50	100				
13	21HO3128	Tropical and Dry Land Fruit Production	100	50	100				
14	21HO3129	Biodiversity and Conservation of Fruit Crops	100	50	100				
15	18HO2003	Precision Farming and Protected Cultivation	100	25	100				
16	21HO3133	Breeding of Fruit Crops	100	25	100				
17	18FP2020	Bakery, Beverages and Confectionery Technology	80	100	100	0	20	0	0
18	21AG3226	Agricultural Research, Research Ethics and Rural Development Programs	75	75	100	25	25		50
19	18HO2020	Horti-Business Management	75	50	100				
20	21HO3132	Canopy Management in Fruit Crops	75	50	100				
21	18HO2023	Nematode Pests of Horticultural Crops and their Management	75	25	100				

22	20BT3010	Agricultural and Food Biotechnology	75	25	-				
23	18FP2036	Storage Engineering	60	60	100	0	0	20	0
24	21AG3029	Mutagenesis and Mutation Breeding	50	100	100				
25	18AG2033	Management of Beneficial Insects	50	50	100				
26	21AG3031	Heterosis Breeding	50	50	100				
27	21AG3032	Cell Biology and Molecular Genetics	50	50	100				
28	21AG3033	Biotechnology for Crop Improvement	50	50	100				
29	21AG3034	Breeding for Quality Traits	50	50	100				
30	21AG3004	Principles and Practices of Water Management	50	25	100		100		
31	21AG3003	Principles and Practices of Weed Management	50	25	100				
32	20BT2042	Plant and Animal Biotechnology	50	25	25				
33	21AG3218	Remote Sensing and GIS Techniques for Soil, Water and Crop Studies	50		100		75		
34	20AG2002	Experiential Learning Programme (ELP) (Module I and II)	50		100				
35	21AG1503	Fundamentals of Crop Physiology-2021 B.Sc Agri A	50		100				

36	21AG1303	Agricultural Microbiology-2021 B.Sc Agri A	25	100	100		20		
37	21AG1351	Fundamentals of Plant Pathology-2021 B.Sc Agri A	25	100	100				
38	18AG1014	Fundamentals of Agricultural Extension Education	25	50	100				
39	18AG2025	Entrepreneurship Development and Business Management	25	50	100				
40	18HO2013	Principles of Ornamental Horticulture and Landscape Architecture	25	50	100				
41	18HO2022	Breeding and Seed Production of Flower and Ornamental Plants	25	50	100				
42	21AG1451	Introductory Soil and Water Conservation Engineering-2021 B.Sc Agri A	25		100		50		
43	18AG2034	Farm Management, Production and Resource Economics	100	100	100		100		100
44	18AG2007	Farming Systems and Sustainable Agriculture	100	100	100				100
45	18AG2008	Crop Production Technology II (Rabi Crops)	100	100	100				100
46	18AG2013	Agricultural Marketing, Trade and Prices	100	100	100				100
47	18AG2027	Rainfed Agriculture and Watershed Management	100	100	100				100
48	18AG2028	Practical Crop Production (Rabi crops)	100	100	100				100
49	18AG2029	Principles of Organic Farming	100	100	100				100

50	21AG1051	Fundamentals of Agricultural Economics-2021 B.Sc Agri A	100	100	100				100
51	18AG2030	Diseases of Field and Horticultural Crops and their Management II	80	80	100				
52	18HO2011	Insect Pests of Fruit, Plantation, Medicinal & Aromatic Crops	80	80	100				
53	18AG2012	Problematic Soils and their Management	50	100	100		25		
54	20ME2014	Industrial Safety and Quality Standards	0	30	100	0	20	0	0
55	18ME2027	Fundamentals of Thermal Sciences and Fluid Mechanics	0	20	100	0	10	0	0
56	19ME1001	Industrial Practice - I (Fundamentals of Chassis Design and Fabrication of Go-Kart)	0	10	100	0	10	10	10
57	19ME1002	Industrial Practice - II (Suspension and Steering Dynamics)	0	10	100	0	10	10	10
58	19ME2003	Industrial Practice - V (Testing and Tuning of Engine and Transmission Systems)	0	10	100	0	10	10	10
59	19ME2004	Industrial Practice - VI (Fundamentals of Design for Electric and Hybrid Vehicles)	0	10	100	0	10	10	10
60	18ME2067	Automobile Engineering	0	10	100	0	10	0	10
61	18ME2020	Manufacturing Processes	0	10	100	0	10	0	0
62	18ME2058	Mechatronics systems	0	10	100	0	10	0	0

63	18ME2073	Modern Manufacturing Techniques	0	10	100	0	10	0	0
64	20ME2010	Kinematics and Dynamics of Machinery	0	10	100	0	10	0	0
65	18ME3043	Industrial Automation and Mechatronics	0	10	100	0	0	0	0
66	20ME3007	Automated Inspection Systems	0	10	100	0	0	0	0
67	21ME3017	Digital Manufacturing	0	10	100	0	0	0	0
68	17ME3036	Two Phase Flow and Heat Transfer	0	0	100	0	30	5	10
69	21ME3004	Manufacturing System and Simulation	0	0	100	0	10	0	0
70	18ME3024	Energy Conservation and Management	0	0	100	0	0	80	10
71	18ME3025	Solar Energy Utilization	0	0	100	0	0	80	10
72	18FP2030	Food Additives	0	0	100	0	0	0	0
73	18ME2034	Operations Research	0	0	100	0	0	0	0
74	18ME2035	Technical Aptitude	0	0	100	0	0	0	0
75	18ME2071	Robotic Engineering	0	0	100	0	0	0	0
76	18ME3031	Two Phase Flow and Heat Transfer	0	0	100	0	0	0	0
77	18ME3032	Computational Fluid Dynamics	0	0	100	0	0	0	0
78	20FP2010	Process Engineering Thermodynamics	0	0	100	0	0	0	0

79	20ME3005	Advanced Product Life Cycle Management and Automation	0	0	100	0	0	0	0
80	20ME3006	Computer Integrated Manufacturing and FMS	0	0	100	0	0	0	0
81	20ME3010	Process Safety Management in Industry	0	0	100	0	0	0	0
82	20ME3999	Dissertation Phase - II	0	0	100	0	0	0	0
83	19BM2028	Medical Imaging Techniques		100	-				
84	20OP2002	General Anatomy and General Physiology-2021 B.Sc (Optometry)		100	-				
85	18AG1006	Rural Sociology and Educational Psychology		50	100	50			
86	18AT2042	Renewable Energy and Green Technology		50	100			100	
87	18AG2014	Introduction to Biotechnology		50	100				
88	18AG2026	Intellectual Property Rights		50	100				
89	18AG2036	Study Tour II		50	100				
90	18AT2038	Weeks Experiential Learning On campus (Student READY)		50	100				
91	18HO2025	Study tour - II		25	100				
92	17BB2023	Management Information System			100				
93	17BB2025	Internet and E-Commerce			100				
94	17BC2014	Company Law and Secretarial Practice			100				
95	17CR2035	NGO Management			100				

96	17MC2012	Visualization-2020-MA (Media and Communication)			100				
97	17MC2019	Web Designing-2020-MA (Media and Communication)			100				
98	17MC2021	Post Production Techniques-2020-MA (Media and Communication)			100				
99	17MC2034	Media Agencies			100				
100	17MC3002	D Animation-2018 MA(Media&Comm)-Int			100				
101	17MC3005	Report Writing and Publication -2018 MA(Media&Comm)-Int			100				
102	17MC3010	Advanced Animation			100				
103	18AE2001	Introduction to Aerospace Engineering			100				
104	18AE2027	Heat and Mass Transfer			100				
105	18AE2030	Wind tunnel Techniques			100				
106	18AE2039	Cryogenic Propulsion			100				
107	18AE2041	Advanced Space Dynamics			100				
108	18AE2043	Aircraft Systems			100				
109	18AE2045	Basics of Aerospace Engineering			100				
110	18AE3014	Computational Heat Transfer			100				
111	18AE3023	Boundary Layer Theory			100				
112	18EC3004	Optical Networks and Photonic Switching			100				
113	19EC2028	Fundamentals of Wireless Communication			100				
114	19EC2029	Data Science and Data analytics			100				

115	20AE2002	Basics of Fluid Mechanics- 2021 B.Tech Aero A			100				
116	20AE2004	Computer Aided Aircraft Drawing-2021 B.Tech Aero A			100				
117	20AE2005	Strength of Materials			100				
118	20AE2011	Aerospace Structures-I			100				
119	20AE2012	Propulsion-I			100				
120	20AE2014	Airplane Performance			100				
121	20AE2017	Gas Dynamics			100				
122	20AE2018	Aircraft Instrumentation and Avionics			100				
123	20BC2005	Financial Accounting- II -2021 B.Com A			100				
124	20BC2006	Banking Theory Law and Practice-(Combined Class) Batch 2			100				
125	20BC2007	Company Law and Secretarial Practice -2021 B.Com A			100				
126	20BC2015	Investment Management			100				
127	20BC2016	Principles of Auditing			100				
128	20BC2018	Indirect Tax			100				
129	20BC2033	Fundamentals of Management Accounting -2021 B.Com (Fintech)			100				
130	20BC2035	Business Intelligence and Data Visualization			100				
131	20BC2039	Commercial Banking -2021 B.Com (Banking)			100				
132	20BC2040	Capital Market Operation - 2021 B.Com (Banking)			100				

133	20BC2044	Currency and Commodities market			100				
134	20BC2045	Clearing, Settlement and Risk Management			100				
135	20BC2046	Back office and Depository operation			100				
136	20BT1002	Basics of Python Programming -(Combined Class)			100				
137	20BT2004	Workshop Practices in Biotechnology-(Combined Class)			100				
138	20BT3064	Bioinformatics and Basics of R Programming			100				
139	20CR2004	Forensic Science-2021 BA Criminology A			100				
140	20CR2006	Criminal Procedure Code - 2021 BA Criminology A			100				
141	20CR2007	Research Methodology -2021 BA Criminology A			100				
142	20CR2014	Forensic Medicine			100				
143	20CR2015	Penology and correctional Administration			100				
144	20CR2017	Outdoor Training			100				
145	21AE3006	Advanced Propulsion Technology			100				
146	21AE3014	Artificial Intelligence and Machine Learning in Aerospace Applications			100				
147	21AG3219	Data Analysis using Statistical Packages			100				

148	21BB2005	Organizational Behaviour - 2021 BBA			100				
149	21BB2006	Financial Accounting-2021 BBA			100				
150	21CR3001	Theoretical Criminology			100				
151	21CR3008	Forensic Medicine and Criminal Jurisprudence			100				
152	21CR3009	Victimology and Victim Assistance			100				
153	21CR3011	Safety and Security Management			100				
154	21CR3012	Police Sciences			100				
155	21CR3013	Field visits to Criminal Justice Institutions			100				
156	21CR3015	Penal and Correctional Science			100				
157	21CR3018	Restorative Justice			100				
158	21CR3019	Therapeutic Jurisprudence			100				
159	17CR2033	Crimes Against Women and Children			-	100			
160	18EE2016	Wind and Solar Energy Systems			-			100	
161	18EE3012	Grid Converters for Solar and Wind Power Systems			-			100	
162	18EE3016	Data Mining for Renewable Energy Systems			-			100	
163	18EE3018	Power Quality Issues and Mitigation			-			100	
164	18EE3019	Distributed Generation and Micro Grid			-			100	
165	18EE3021	Smart Power Grid Renewable Energy Systems			-			100	

166	18EE3022	Electric and Hybrid Vehicles			-			100	
167	19EE2020	Power Electronics for Renewable Energy			-			100	
168	19EE2044	Modern Forecasting Techniques			-			100	
169	18AT2017	Bio Energy Systems Design and Applications			-			100	
170	20RO3014	Industrial Internet of Things and its Applications			-				100