



# KALASALINGAM

## ACADEMY OF RESEARCH AND EDUCATION

### (DEEMED TO BE UNIVERSITY)

Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade



#### Environmental Education:

Courses that teach specifically on climate science and or environmental sustainability

#### Total number of courses/modules offered

Year	2020	2021	2022	2023	2024
No. of Courses	2820	2820	2639	2967	2967
Sustainability Courses	727	747	753	867	921
Ratio of sustainability courses to total courses	25.78%	26.48%	28.53%	29.22%	30.04%

#### Description:

The number of courses offered increases from 2019. Curriculum is revised as and when it is needed and curriculum is updated every year. As a result new courses are being added. The ratio of sustainability courses to total courses during 2024 = **30.04%**.

#### Description:

The number of courses offered increases from 2019. Curriculum is revised as and when it is needed and curriculum is updated every year. As a result new courses are being added. The total number of courses offered during 2024 = 2967.

#### Sustainability courses in curriculum:

S.No	Course Code	Course Name
1	CHY18R4032	Environmental Chemistry
2	CHY17R103	Environmental Science
3	CHY18R5032	Green Chemistry
4	AGR18R265	Introductory Agro-Meteorology and Climate Change
5	AGR18R261	Renewable Energy and Green Technology

6	HOR18R162	Agro-meteorology and Climate Change
7	AGR18R153	Fundamentals of Soil Science
8	AGR18R154	Introduction to Forestry
9	AGR18R102	Rural Sociology and Educational Psychology
10	AGR18R201	Problematic Soils and their Management
11	AGR18R352	Manures, Fertilizers and Soil Fertility Management
12	AGR18R358	Rain fed Agriculture and Watershed Management
13	AGR18R359	Protected Cultivation and Secondary Agriculture
14	AGR18R362	Management of Beneficial Insects
15	AGR18R365	Farm Management, Production and Resource Economics
16	AGR18R155	Fundamentals of Agronomy
17	AGR18R101	Agricultural Heritage
18	NG18R1003	Physical Education
19	AGR18R259	Crop Production Technology – II (Commercial crops)
20	AGR18R260	Production Technology for Commercial Crops, MAP and Landscaping
21	AGR18R202	Farming System and Sustainable Agriculture
22	AGR18R364	Principles of Organic Farming
23	HOR18R151	Fundamentals of Soil Science
24	HOR18R163	Weed and Water Management in Horticultural Crops
25	HOR18R167	Soil Fertility and Nutrient Management
26	HOR18R254	Environmental Studies and Disaster Management
27	HOR18R261	Soil, Water and plant Analysis
28	HOR18R267	Dry land Horticulture
29	HOR18R353	Introductory Agro forestry
30	HOR18R368	Precision Farming and Protected Cultivation
31	HOR18R168	Livestock and Poultry: Production and Management.
32	HOR18R361	Apiculture, Sericulture and Lac culture
33	HOR18R268	Organic Farming
34	AGE18R151	Principles of Soil Science
35	AGE18R152	Surveying and Leveling
36	AGE18R154	Environmental Science and Disaster Management
37	AGE18R253	Soil Mechanics
38	AGE18R260	Watershed Hydrology
39	AGE18R353	Agricultural Structures and Environmental Control
40	AGE18R355	Soil and Water Conservation Engineering
41	AGE18R356	Watershed Planning and Management
42	AGE18R361	Water Harvesting and Soil Conservation Structures
43	AGE18R261	Irrigation Engineering
44	AGE18R262	Sprinkler and Micro Irrigation Systems
45	AGE18R263	Fundamentals of Renewable Energy Sources

46	AGE18R357	Drainage Engineering
47	AGE18R358	Renewable Power Sources
48	AGE18R362	Groundwater, Wells and Pumps
49	AGE18R363	Dairy and Food Engineering
50	AGE18R364	Bio-energy Systems: Design and Applications

Total no of courses offered from our institution is 2967 and the courses offered for sustainability is 808.  
Every year we are increasing the sustainability courses for sustenance of quality of students.

Total no of courses offered = 2967

Total no of sustainable courses offered = 867/2967

Ratio of sustainability courses to total no of courses offered = **29.22%**

#### **Sustainability course with NPTEL :**

**The following list of NPTEL courses offered and credit transferred**

<b>S.No</b>	<b>Name of the Course</b>	<b>No.of Students applied credit transfer</b>
1	Air pollution and Control	908
2	Environment And Development	506
3	Wastewater Treatment And Recycling	107
4	Municipal Solid Waste Management	44
5	Rural Water Resources Management	37
6	Natural Hazards	33
7	Water Quality Management Practices	29
8	Plastic Waste Management	22
9	Physics Of Renewable Energy Systems	17
10	Sustainable Energy Technology	14
11	Water and wastewater treatment	13
12	Environmental Science	10
13	Business And Sustainable Development	8
14	Basic Environmental Engineering And Pollution Abatement	3
15	Introduction to Environmental Economics	3
16	Sustainable Power Generation Systems	3
17	Applied Environmental Microbiology	2
18	Groundwater hydrology and management	2
19	Energy Conversion Technologies (Biomass And Coal)	1

20	Energy Resources, Economics, and Sustainability	1
21	EV - Vehicle Dynamics and Electric Motor Drives	1
22	Introduction To Environmental Engineering And Science - Fundamental And Sustainability Concepts	1
23	Strategies for Sustainable Design	1
24	Sustainable Architecture	1
25	Sustainable Transportation Systems	1
	<b>Total</b>	<b>1768</b>

### Education programmes on climate:

#### Academic programs:

To ensure the success of its energy efficiency initiative, the institute offers various programs on energy and climate change. These programs aim to raise awareness among the student community.

- **M.Tech programme on Renewable Energy Technologies**

URL: <https://kalasalingam.ac.in/course/m-tech-renewable-energy-technologies/>

- **Program Elective courses:** [B.Tech., EEE Curriculum and syllabi](#)

S.No	Course Code	Course Name	Dept
1.	213EEE3132	Solar Photovoltaic Systems	EEE
2.	213EEE3133	Wind Power Generation	EEE
3.	213EEE3134	Biomass Energy System	EEE
	213EEE3135	Geothermal and Ocean Energy Conversion	EEE
4.	213EEE3136	Industrial & Commercial Aspects of Renewable Energy Sources	EEE
5.	213EEE2137	Renewable Energy Sources	EEE
6.	213EEE3138	Fuel Cell Technology	EEE

7. 213EEE3139 Smart Grid EEE 8. 213EEE2150 Solar and Wind Energy Conversion EEE

- Foundation course on Sustainable development (**211MEC1401 - Sustainable**

**Design and Manufacturing)** that aimed at educating the campus community about the importance of energy conservation

#### NEP Courses

S. No.	Name	Register Number	Dept.	Semester of study	Name of IUCEE course cleared	Duration of the course
1	Aditya Prakash	99210041496	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introduction to sustainability	Dec 2022 - Feb 2023
2	Sachin Sahadev Singh	99210041113	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introduction to sustainability	Dec 2022 - Feb 2023
3	Ravi Bhushan	99210041487	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introduction to sustainability	Dec 2022 - Feb 2023
4	Gubba V Sessa Sai Krishna Vineeth	9921004803	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introduction to sustainability	Dec 2022 - Feb 2023

5	Yaramasu Sravani	99210042253	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introductio n to sustainabili ty	Dec 2022 - Feb 2023
6	Gatikoppu Sai Phanindra Kumar	9921004217	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introductio n to sustainabili ty	Dec 2022 - Feb 2023
7	Anigalla Pavan Vivek	9921004034	Computer Science and Engineering (All Specializations)	VI	IUCEE NEP Course - Introductio n to sustainabili ty	Dec 2022 - Feb 2023