

VAC075	RURAL TECHNOLOGY
Contact Hours	30 Hours
Prerequisite	Nil

Course Description

This course on Rural Technology is designed to equip participants with the knowledge and practical skills to address the unique challenges and opportunities in rural areas. Students will explore various technologies and innovations that can enhance the quality of life and economic prospects in rural communities. The course aims to empower individuals with the ability to develop and implement technology-based solutions for rural development.

Course Objectives

Students will be able to:

- Understand the significance of rural technology in addressing rural challenges.
- Explore technology solutions for agriculture and agribusiness in rural areas.
- Identify renewable energy and infrastructure technologies suitable for rural communities.
- Promote digital literacy and e-governance in rural regions.
- Develop and implement technology-driven projects for rural development.

Course Outcomes

On completion of the course, students will be able to:

CO 1: Explain the significance of rural technology in addressing rural challenges.

CO 2: Analyze job descriptions to align responses with employers' expectations.

CO 3: Identify renewable energy and infrastructure technologies suitable for rural communities.

CO 4: Promote digital literacy and e-governance in rural regions.

Course Outline

Module 1: Introduction to Rural Technology

4 hours

- The Role of Technology in Rural Development
- Ethical Considerations in Rural Technology
- Challenges and Opportunities in Rural Areas



Module 2: Agricultural Technology**5 hours**

- Technological Innovations in Agriculture
- Precision Farming and Smart Agriculture
- Farm Mechanization and Equipment
- Digital Tools for Farm Management

Module 3: Agribusiness and Value Addition**5 hours**

- Rural Agribusiness Opportunities
- Agro-processing and Value Addition
- Market Access and E-commerce
- Financing Rural Agribusiness Ventures

Module 4: Renewable Energy Solutions**4 hours**

- Sustainable Energy Sources in Rural Areas
- Solar Power and Wind Energy
- Biomass and Biogas Technologies
- Rural Electrification and Energy Efficiency

Module 5: Rural Infrastructure Development**4 hours**

- Road and Transportation Infrastructure
- Water Supply and Sanitation
- Telecommunication and Connectivity
- Sustainable Rural Housing Solutions

Module 6: Digital Literacy and E-governance**4 hours**

- Promoting Digital Literacy in Rural Communities
- E-governance Initiatives
- Digital Access and Inclusion
- Rural Technology for Education and Health

Module 7: Sustainable and Eco-friendly Technologies**4 hours**

- Sustainable Rural Technologies
- Eco-friendly Practices and Innovations
- Circular Economy in Rural Areas
- Waste Management and Recycling

Practicum

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The course includes a practicum where students will engage in rural technology assessment and planning, develop technology-driven rural projects, promote community engagement and participation, and complete a final rural technology project.

Textbooks

Reddy, V. R. (2017). Renewable Energy Technologies: A Practical Guide for Beginners. Springer.

Reference Books

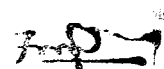
FAO. (2019). Agro-Industry Investment for Inclusive Rural Transformation: Sustainable Investment Promotion in Agro-Industry (SIPIA) (No. 24). Food and Agriculture Organization of the United Nations.

Iyer, R., & D'Cruz, R. (2020). Digital Empowerment: Unlocking Rural India. SAGE Publications.

Mehta, M. P., & Mehta, M. D. (2017). Rural Development: Principles, Policies, and Management (3rd ed.). SAGE Publications.

Shibu, K. M. (2018). Introduction to Embedded Systems (2nd ed.). McGraw-Hill Education.

	Evaluation Component	Weightage (%)
1	Activities and Assignments	20
2	Project	20
3	Attendance	10
4	End Term Examination	50



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K.R. MANGALAM UNIVERSITY
EDUCATION FOR LIFE
(Recognized by UGC and a member of AIU)

Ref.No.:KRMU/Admin./Notice/2021-2022/ 2441(B)

Dated: 07th August, 2021

NOTICE

This is to put for information that School of Basic & Applied Sciences is offering Value-Added Course (VAC) for all interested students during Odd Semester as per the following specifications.

Course Code	Course Title	Coordinating Department / School	Duration
VAC075	Rural Technology	SBAS	30 Hrs.

Maximum 100 seats are available for the course.

Course Start Date: 08 September 2021

Course End Date: 29 September 2021

All interested students are required to confirm their registration with the Dean-School of Basic & Applied Sciences latest by **27th August, 2021.**



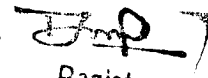
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- Vice Chancellor
- Dean (Academics Affairs)
- Controller of Examinations
- All Deans/ School Coordinators
- All Faculty Members/ Mentors
- Notice Board
- Office Copy

For kind information



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ATTENDANCE SHEET
VAC COURSE FOR ACADEMIC YEAR 2021-22
COURSE CODE: VAC075
COURSE TITLE: RURAL TECHNOLOGY

ROLL NO	NAME	PROGRAMME	SEMESTER	8-Sep-21	10-Sep-21	17-Sep-21	22-Sep-21	29-Sep-21	3-Oct-21	5-Oct-21
2113820016	GAURAV KUMAR	B.Sc. (H) Agriculture	Semester I	A	A	P	P	P	P	P
2113820002	ARBAJ	B.Sc. (H) Agriculture	Semester I	A	P	P	A	P	P	P
2113820008	SONAL GOYAL	B.Sc. (H) Agriculture	Semester I	P	P	P	P	A	P	P
2101730017	GAURAV RAWAT	B.Tech CSE	Semester I	P	P	A	A	P	P	A
2101730014	NITIN YADAV	B.Tech CSE	Semester I	A	P	P	A	P	P	A
2101730010	DAKSH KAKKAR	B.Tech CSE	Semester I	A	P	P	P	P	P	P

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Meena

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Haryana - 122103

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COURSE INCHARGE



ATTENDANCE SHEET

VAC COURSE FOR ACADEMIC YEAR 2021-22

COURSE CODE: VAC075

COURSE TITLE: RURAL TECHNOLOGY

ROLL NO	NAME	10-Oct-21	12-Oct-21	17-Oct-21	19-Oct-21	24-Oct-21	26-Oct-21	1-Nov-21	3-Nov-21	5-Nov-21
2113820016	GAURAV KUMAR	P	P	P	P	P	P	P	P	P
2113820002	ARBAJ	A	P	P	P	P	P	P	A	P
2113820008	SONAL GOYAL	P	P	P	P	P	P	P	P	P
2101730017	GAURAV RAWAT	P	P	P	P	P	A	P	P	A
2101730014	NITIN YADAV	A	P	P	P	P	A	P	P	P
2101730010	DAKSH KAKKAR	P	P	P	P	P	P	P	P	P

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VAC COURSE FOR ACADEMIC YEAR 2021-22
COURSE CODE: VAC075
COURSE TITLE: RURAL TECHNOLOGY

ROLL NO	NAME	10-Nov-21	12-Nov-21	17-Nov-21	21-Nov-21	24-Nov-21	26-Nov-21	1-Dec-21	3-Dec-21	8-Dec-21
2113820016	GAURAV KUMAR	P	P	P	P	P	P	P	A	P
2113820002	ARBAJ	A	P	P	P	P	P	P	P	P
2113820008	SONAL GOYAL	P	P	P	P	P	P	A	P	P
2101730017	GAURAV RAWAT	P	P	P	A	P	P	P	P	A
2101730014	NITIN YADAV	P	A	P	P	P	P	A	P	P
2101730010	DAKSH KAKKAR	P	A	P	P	P	P	P	A	P

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ATTENDANCE SHEET
VAC COURSE FOR ACADEMIC YEAR 2021-22
COURSE CODE: VAC075
COURSE TITLE: RURAL TECHNOLOGY

ROLL NO	NAME	10-Dec-21	15-Dec-21	17-Dec-21	22-Dec-21	24-Dec-21	29-Dec-21	Total	Present	Percentage
2113820016	GAURAV KUMAR	P	P	A	P	A	A	31	25	80.65
2113820002	ARBAJ	P	P	P	P	A	A	31	24	77.42
2113820008	SONAL GOYAL	A	P	P	A	P	P	31	27	87.10
2101730017	GAURAV RAWAT	P	P	P	P	P	P	31	24	77.42
2101730014	NITIN YADAV	P	P	P	P	P	P	31	24	77.42
2101730010	DAKSH KAKKAR	A	P	P	A	P	P	31	26	83.87

Dr. J. K. Singh

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VALUE ADDED COURSE(VAC)
ACADEMIC YEAR 2021-22
COURSE CODE: VAC075
COURSE TITLE: RURAL TECHNOLOGY
COURSE OFFERED BY: SCHOOL OF BASIC AND APPLIED SCIENCES (SBAS)
LIST OF STUDENTS COMPLETING THE COURSE

S.NO	SESSION	ROLL NO	NAME	PROGRAMME	SEMESTER	COURSE CODE	COURSE TITLE	SCHOOL
1	2022-23	2113820016	GAURAV KUMAR	B.Sc. (H) Agriculture	Semester I	VAC075	RURAL TECHNOLOGY	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)
2	2022-23	2113820002	ARBAJ	B.Sc. (H) Agriculture	Semester I	VAC075	RURAL TECHNOLOGY	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)
3	2022-23	2113820008	SONAL GOYAL	B.Sc. (H) Agriculture	Semester I	VAC075	RURAL TECHNOLOGY	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)
4	2022-23	2101730017	GAURAV RAWAT	B.Tech CSE	Semester I	VAC075	RURAL TECHNOLOGY	SCHOOL OF ENGINEERING & TECHNOLOGY (SOET)
5	2022-23	2101730014	NITIN YADAV	B.Tech CSE	Semester I	VAC075	RURAL TECHNOLOGY	SCHOOL OF ENGINEERING & TECHNOLOGY (SOET)
6	2022-23	2101730010	DAKSH KAKKAR	B.Tech CSE	Semester I	VAC075	RURAL TECHNOLOGY	SCHOOL OF ENGINEERING & TECHNOLOGY (SOET)

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This is to certify that **GAURAV KUMAR**, University Enrolment No **2113820016** of **B.Sc. (H) Agriculture** programme has successfully qualified **VALUE ADDED COURSE VAC075 (Rural Technology)** during Academic Session **2021-22 (Odd Semester)**.

Date: 21.02.2022

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This is to certify that **ARBAJ**, University Enrolment No **2113820002** of **B.Sc. (H) Agriculture** programme has successfully qualified **VALUE ADDED COURSE VAC075 (Rural Technology)** during Academic Session **2021-22 (Odd Semester)**.

Date: 21.02.2022

h. rahajan

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This is to certify that **SONAL GOYAL**, University Enrolment No **2113820008** of **B.Sc. (H) Agriculture** programme has successfully qualified **VALUE ADDED COURSE VAC075 (Rural Technology)** during Academic Session **2021-22 (Odd Semester)**.

Date: 21.02.2022

Shahajan

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This is to certify that **GAURAV RAWAT**, University Enrolment No **2101730017** of **B.Tech CSE** programme has successfully qualified **VALUE ADDED COURSE VAC075 (Rural Technology)** during Academic Session **2021-22 (Odd Semester)**.

Date: 21.02.2022

hrajajan

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This is to certify that **NITIN YADAV**, University Enrolment No **2101730014** of **B.Tech CSE** programme has successfully qualified **VALUE ADDED COURSE VAC075 (Rural Technology)** during Academic Session **2021-22 (Odd Semester)**.

Date: 21.02.2022

h. rajan

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CERTIFICATE OF COMPLETION

This is to certify that **DAKSH KAKKAR**, University Enrolment No **2101730010** of **B.Tech CSE** programme has successfully qualified **VALUE ADDED COURSE VAC075 (Rural Technology)** during Academic Session **2021-22 (Odd Semester)**.

Date: 21.02.2022

hrajani

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Dr.

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