

College of Technology and Engineering

Maharana Pratap University of Agriculture & Technology, Udaipur
(Rajasthan)

Department of Electrical Engineering, CTAE, Udaipur

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Power Electronics
2	Advanced Electric Drives
3	Nano Technology in Power System
4	Distributed Generation
5	Deregulation of Power System
6	Power System
7	Solar System
8	Power Converter based Wind Generation System
9	Artificial Intelligence
10	Control System
11	Energy System
12	Electrical vehicles
13	Electrical Machines

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. R.R. Joshi	<ul style="list-style-type: none">• Power Electronics & Drive• AI applications• Power quality
2	Dr. Vikramaditya Dave	<ul style="list-style-type: none">• Nano Technology• ANN & Fuzzy Logic• Control System
3	Dr. Vinod Kumar Yadav	<ul style="list-style-type: none">• Power Electronics• HVDC• Advanced Electric Drives

		<ul style="list-style-type: none"> • Power Converter based Wind Generation System
4	Dr. Naveen Jain	<ul style="list-style-type: none"> • Planning of Distributed Generation • Reliability issues in Electrical Power System • Technical issues in Electricity Energy Market • Application of Heuristic Optimization Methods in Electrical Power System
5	Dr. Jai Kumar Maherchandani	<ul style="list-style-type: none"> • Electric Drives • Solar System • Power Electronics • Electrical Machines

- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. R.R. Joshi	02	03
2	Dr. Vikramaditya Dave	01	04
3	Dr. Vinod Kumar Yadav	03	02
4	Dr. Naveen Jain	02	03
5	Dr. Jai Kumar Maherchandani	02	03

Department of Mechanical Engineering, CTAE, Udaipur

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Design Engineering
2	Thermal engineering
3	Manufacturing Engineering
4	Ergonomics
5	Bio Fuels
6	Industrial Engineering

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. MA Saloda	<ul style="list-style-type: none"> • Manufacturing • Finite Element Analysis
2	Dr. BP Nandwana	<ul style="list-style-type: none"> • Design Engineering • Vibration • Finite Element Analysis
3	Dr. S Jindal	<ul style="list-style-type: none"> • Thermal Engineering • IC Engines • Industrial Engineering
4	Dr. BL Salvi	<ul style="list-style-type: none"> • IC Engines • Ergonomics • Instrumentation
5	Dr. MS Khidiya	<ul style="list-style-type: none"> • Ergonomics • Production Engineering
6	Dr. Chitranjan	<ul style="list-style-type: none"> • Thermal Engineering • IC Engines • Heat Transfer and RAC

- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. MA Saloda	01	03
2	Dr. BP Nandwana	00	04
3	Dr. S Jindal	00	04
4	Dr. BL Salvi	00	04
5	Dr. MS Khidiya	00	04
6	Dr. Chitranjan	01	03

Department of Mining Engineering, CTAE, Udaipur

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Metal Mining
2	Mine Planning
3	Mining Machinery
4	Blasting

5	Dimensional Stone Mining
6	Rock Mechanics
7	Mineral Processing
8	Mine Environment Engineering
9	Coal Mining
10	Slope stability analysis

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. S.C. Jain	<ul style="list-style-type: none"> • Mine Planning • Dimensional Stone Mining • Blasting • Rock Mechanics • Coal Mining • Slope stability analysis
2	Dr. Anupam Bhatnagar	<ul style="list-style-type: none"> • Metal Mining • Mining Machinery • Dimensional Stone Mining • Mineral Processing • Mine Environment Engineering

- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. S.C. Jain	01	04
2	Dr. Anupam Bhatnagar	01	04

Department of Civil Engineering, CTAE, Udaipur

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of Research
1	Advancement in Foundation
2	Ground improvement technique

3	Soil Stabilization
4	Structural analysis
5	Concrete technology
6	Solid Waste Management
7	Water treatment
8	Sewage treatment
9	Durability of concrete
10	Utilization of waste material in concrete
11	Analysis of Structures

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. R.P.Arora	<ul style="list-style-type: none"> • Advancement in Foundation • Ground improvement technique • Soil stabilization
2	Dr. Ravi K. Sharma	<ul style="list-style-type: none"> • Structural Analysis • Concrete Technology
3	Dr. B.S.Singhvi	<ul style="list-style-type: none"> • Solid Waste Management • Water treatment • Sewage treatment
4	Dr. Trilok Gupta	<ul style="list-style-type: none"> • Durability of concrete • Utilization of waste material in concrete • Analysis of Structures

- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. R. P. Arora	01	4
2	Dr. Ravi K. Sharma	01	4
3	Dr. B. S. Singhvi	01	4
4	Dr. Trilok Gupta	01	4

Department of Farm Machinery and Power Engineering

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Farm Machinery (a) Primary Tillage (b) Secondary Tillage (c) Seed bed preparation (d) Sowing & Planting (e) Intercultural Operation (f) Harvesting of Grain and Forage (e) Threshing & Winnowing (f) Material Handling
2	Management of Farm Machinery
3	Farm Power
4	Farm Power Management
5	Ergonomics
6	Traction
7	Designing of Solar System on Agril Farm
8	Agri Business Management
9	Plant Protection
10	Tractor systems
11	Hydraulic System of Tractors and Machines
12	Earth Moving machine
13	Precision Agriculture
14	Automation in Farm Operation

- Eligible supervisors with their area of expertise

Sr. No.	Name	Broad Area of expertise
1	Dr. G S Tiwari	<ul style="list-style-type: none"> • Farm Power and Machinery
2	Dr. A K Mehta	<ul style="list-style-type: none"> • Ergonomics and Management
3	Dr. Ajay Sharma	<ul style="list-style-type: none"> • Tillage and Traction & precision farming
4	Dr. S M Mathur	<ul style="list-style-type: none"> • Harvesting and Plant protection Machines

- Details of Registered Students with each supervisor

Sr. No.	Name of Supervisor	No. of Seats/Year	No of Registered Students
1	Dr. G S Tiwari	06	02
2	Dr. A K Mehta	06	07
3	Dr. Ajay Sharma	06	07
4	Dr. S M Mathur	06	06

DEPARTMENT OF PROCESSING AND FOOD ENGINEERING

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Osmotic dehydration
2	Microwave drying
3	Infrared Drying
4	Cereal processing
5	Pulse milling
6	Value Addition
7	Primary processing

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. P S Champawat	<ul style="list-style-type: none"> • Post Harvest Technology
2	Dr. R C Verma	<ul style="list-style-type: none"> • Post Harvest Engineering

3	Dr. S K Jain	<ul style="list-style-type: none"> Post Harvest Engineering
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- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. P S Champawat	3	Nil
2	Dr. R C Varma	3	Nil
3	Dr. S K Jain	3	Nil

DEPARTMENT OF SOIL AND WATER ENGINEERING

Broad area of Research

S.No.	Area of Research
1.	Soil and Water Conservation Engineering
2.	Wells & Pumps
3.	Watershed Hydrology
4.	Plasticulture Technologies
5.	Drainage Engineering
6.	Soil Water Plant Relationship
7.	Ground Water Modelling
8.	Watershed Management
9.	Soil Conservation Structures
10.	Irrigation & Command Area Development
11.	Water Rseources Engineering
12.	Remote Sensing & GIS Applications
13	Rainwater Harvesting & Management
14.	Ground Water Engineering

Eligible Supervisors with their area of Expertise

S.No.	Name	Area of Expertise
1.	Dr. H.K. Mittal Professor	1. Soil and Water Conservation Engineering 2. Wells & Pumps 3. Watershed Hyddrology
2.	Dr. S.R. Bhakar Professor	1. Plasticulture Technologies 2. Drainage Engineering 3. Soil Water Plant Relationship 4. Soil and Water Conservation Engineering 5. Ground Water Modelling
3.	Dr. P.K. Singh Professor	1. Watershed Management 2. Soil Conservation Structures 3. Rainwater Harvesting & Management

		4. Ground Water Engineering
4.	Dr. Mahesh Kothari Professor	1. Irrigation Command Area Development 2. Water Resources Engineering 3. Remote Sensing & GIS Application

Details of Filled and Vacant Seats with each Supervisor

S.No.	Name of Supervisor	Filled Seats	Vacant Seats
1.	Dr. H.K. Mittal Professor	03	02
2.	Dr. S.R. Bhakar Professor	02+2	01
3	Dr. P.K. Singh Professor	02+2	01
4.	Dr. Mahesh Kothari Professor	04+1	-

Department of Renewable Energy Engineering

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Slurry and Waste Management
2	Solar energy utilization for drying
3	Municipal solid waste management
4	Improved biomass cookstoves design & testing
5	Life cycle assessment of renewable energy project
6	Solar thermal
7	Wind energy
8	Biomass Gasification
9	Carbonization of crop residues
10	Bio-oil production from crop residues
11	Torrefaction of biomass
12	Improved wood gas stove
13	Solar refrigeration and air conditioning
14	Solar photovoltaics

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. Sudhir Jain	<ul style="list-style-type: none"> • Slurry & waste management • Solar energy • Wind energy
2	Dr. Surendra Kothari	<ul style="list-style-type: none"> • Solar energy
3	Dr. Deepak Sharma	<ul style="list-style-type: none"> • Bioenergy audit & management • Environmental pollution & control • Biogas power generation & bottling
4	Dr. N. L. Panwar	<ul style="list-style-type: none"> • Biomass Gasification • Carbonization of crop residues • Bio-oil production from crop residues • Torrefaction of biomass • Improved wood gas stove • Solar refrigeration and air conditioning

- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. Sudhir Jain	03	03
2	Dr. Surendra Kothari	02	-
3	Dr. Deepak Sharma	03	03
4	Dr. N. L. Panwar	03	03

Department of Computer Science & Engineering

Research Areas, Priorities and Potential Supervisors

- Broad area of research

Sr. No.	Area of research
1	Network on Chips
2	Image processing
3	Wireless Sensor Networks
4	Cyber security
5	Mobile Networks
6	Internet of Things
7	Information Security
8	Cloud Computing

- Eligible supervisors with their area of expertise

Sr. No.	Name	Area of expertise
1	Dr. Naveen Choudhary	<ul style="list-style-type: none"> • Network of Chips • Wireless Networks • Internet of things • Cyber Security

- Details of filled and vacant seats with each supervisor

Sr. No.	Name of Supervisor	Filled Seats	Vacant Seats
1	Dr. Naveen Choudhary	04	01

Department of Electronics and Communication Engineering

Broad Area/Sub area of research: Electronics and Communication Engineering				
S.No.	Name Of Supervisor	Area Of expertise	No. Of Research Scholar Currently working	No. Of vacant seats
1	Dr. Sunil Joshi(Prof. &head)	Major Field: Electronics and Communication Engineering: Sub Areas: RF design, MIMO, Microwave antenna, Sensors	Nitin Kothari	1
			Priyanka Kumawat	
			Vatsala Sharma	
			Shruti Kumawat	
2	Dr. Navneet Kumar Agrawal (Asst. Prof)	Major Field: Electronics and Communication Engineering : Sub Areas : Digital Image Processing,Radar Engineering,optical fibre communication,microwave antenna	Anu Singh	4
			Isha Suwalka	
			Rachna Mehta	