



CENTRAL UNIVERSITY OF JHAKHAND

CENTRE FOR ENERGY ENGINEERING

# PLACEMENT BROCHURE BATCH: 2012-17







## CUJ@GLANCE

The President of India gave assent to The Central Universities Act, 2009 that envisages establishing and incorporating universities for teaching and research in the various states. The Central University of Jharkhand came into being under this Act on 1st of March, 2009. CUJ has 7 schools and 22 centres imparting quality education in Science, Technology, Social Science, Languages, Business Management and Journalism & Media Technologies, mostly conducting 5 year integrated courses and PhD programmes.

## The Motto: Knowledge to Wisdom

At CUJ, sports attendance is compulsory as is wearing uniforms to class; study tours are organised routinely and community projects are being planned. The attempt is to impart an education that fosters the wish for truth and encourages creativity in order that CUJ students think differently, act with honour to be global citizens owing allegiance to their country and are useful to mankind, ever remembering that they need to transform their knowledge into wisdom.

## Vision

Our vision is to create a world class university in every aspect, be it research, teaching, administration or co-curricular activities, to produce world class students ready to excel in every chosen field with honour and uprightness.



## Objectives

The objectives of the University are to:

- ❖ Disseminate and advance knowledge by providing instructional and research facilities in various disciplines
- ❖ Promote innovations in teaching-learning processes and inter-disciplinary studies and research
- ❖ Educate and train manpower for the development of the country
- ❖ Establish linkages with industries for the promotion of science and technology





# CENTRE FOR ENERGY ENGINEERING



## Mission

Energy, the elixir of human existence and catalyst for the development of a Nation, being consumed at faster rate than ever, consequently, leading to both depletion of fossil-fuel based resources and deterioration of global environment, calls for a concerted effort to develop different/diverse sustainable energy technologies like solar and its derivatives; to evolve efficient energy technology strategies; to implement the best energy conservation practices; and to produce highly skilled manpower in the field of Energy Engineering through world class teaching and researcher sources and infrastructure

## About Centre

The Centre for Energy Engineering(CEE) came into existence in July 2011 under the school of Engineering and Technology. The Centre is committed to the mission and goals of the University for not only Teaching and Research but also overall development of the region and the country by emphasizing on the need of renewable energy technologies and their applications for the common masses. The Centre is currently offering five years integrated M. Tech. program as well as PhD program in Energy Engineering. The first batch of integrated M. Tech. with a strength of 36 students from different parts of the country passed out in 2016. The Centre is in the process of developing new high quality research facility on Energy Engineering under a development and innovation-friendly environment for nurturing and promoting novel ideas with intensive interaction and co-operations at all levels. The Centre of Excellence in Green and Efficient Energy Technology to be established with funding under FAST scheme of Ministry of Human Resources and Development, Government of India is a step in that direction.





## MESSAGE FROM THE VICE-CHANCELLOR



**"We give you freedom and extend all physical facilities to carry out your own recruitment process at our university campus"**

Dear Recruiters

Greetings from CUJ, RANCHI !

It is a great pleasure for me to welcome you to placement activities of our University. Through the pages of this brochure you will get a broad overview of our programmes, activities and the placement process. I take this opportunity to present 30 postgraduates from Centre for Energy Engineering of the Central University of Jharkhand. Pursing our motto '*Knowledge to Wisdom*' we strive to the methods of academic inquiry instead of giving priority to the search for knowledge. We also seek to promote wisdom by rational means as wisdom being the capacity to realize what is of value in life, for oneself and for others. Wisdom thus include knowledge but much else besides. A basic task ought to be to help humanity learn how to create a better world. Considering the globalisation of economy that prevails now placement is an important activity of every institution. The Placement Brochure provides the recruiters an insight about qualities of education imparted and expertise of our students relevant to the employer's need.

We give you freedom and extend all physical facilities to carry out your own recruitment process at our university campus. I hope you will find our students very competent and you will visit us again year after year. We welcome your interest in our institution as a source of potential feeder. I wish the students of the Centre for Energy Engineering all the best in their endeavour.

On behalf of Central University of Jharkhand, I invite all the potential recruiters to participate in the placement process of Centre for Energy Engineering

**Prof. Nand Kumar Yadav 'Indu'**

**Vice-Chancellor**

*Central University of Jharkhand,  
Ranchi*



## MESSAGE FROM THE HOD



*"We have designed the Post Graduate Programme very carefully to develop our students into global organizational leaders"*

It is indeed a great pleasure for me to introduce Centre for Energy Engineering, Central University of Jharkhand, Ranchi which is striving consistently for achieving excellence since its inception in 2011. We follow the best practices in teaching and research, a number of teachers have been able to get research and development projects, have good publications to their credit and have organized a few successful extension activities. The five year integrated course in Energy Engineering seeks to inculcate its students through theory and practical courses, the ability to understand, conceptualize, design & develop cost-effective renewables, energy efficient devices & systems.

As the first batch is passing through the portal of CUJ this year, we hereby, present the second placement brochure for Integrated M.Tech (Energy Engineering) students 2012-2017 batch. The first batch (2011-2016) students reasonably good placement in institute/organisation of national repute. I look forward further improvement in the scenario this year. we take the opportunity to invite you to our university and urge to interact with our students and faculties to have a first-hand feel about us. We are sure that our students would be able to match your expectations and contribute significantly in achievement of the goals of your

**Prof. S.K.Samdarshi**  
Dean, School of Engineering &  
Head, Centre for Energy Engineering



# Schools & Centres



## School of Engineering & Technology

- ❑ Centre for Energy Engineering
- ❑ Centre for Nanotechnology
- ❑ Centre for Computer Science

## School of Languages

- ❑ Centre for English Language
- ❑ Centre for Chinese Language
- ❑ Centre for Korean Language
- ❑ Centre for Tibetan Language

## School of Natural Resource Management

- ❑ Centre for Water Engineering & Management
- ❑ Centre for Land Resource Management
- ❑ Centre for Environmental Science

## School of Natural Science

- ❑ Centre for Applied Mathematics
- ❑ Centre for Applied Chemistry
- ❑ Centre for Applied Physics
- ❑ Centre for Life Sciences

## School of Cultural Studies

- ❑ Centre for Indigenous Culture
- ❑ Centre for Music & Performing Arts
- ❑ Centre for Tribal & Customary Law
- ❑ Centre for Tribal Folklore Language & Literature

## School of Mass Communication & Media Technologies

- ❑ Centre for Mass Communication

## School of Humanities & Social Sciences

- ❑ Centre for Human Rights & Conflict Management
- ❑ Centre for International Relations
- ❑ Centre for Humanités & Social Sciences

## School of Management Sciences

- ❑ Centre for Business Administration

## School of Education

- ❑ Centre for Education

# Energy Engineering Program

5 years  
Integrated  
M. Tech  
(Energy Engineering)

PhD (Energy Engineering)

## STUDENT'S AREA OF INTERESTS



- SOLAR PV
- BIOENERGY
- WASTE TO ENERGY
- SOLAR THERMAL
- ELECTRICAL SYSTEM
- MECHANICAL SYSTEM
- ENERGY AUDITING
- ENERGY MATERIAL
- EFFICIENT BUILDING
- WIND ENERGY





5 years Integrated M. Tech (Energy Engineering)

Core Courses
Solar PV Technology
Solar Thermal Technology
Wind Energy Technology
Introduction to Renewable Energy Resources
Energy System Modelling & Analysis
Emerging Renewable Energy Resources
Energy Efficient Buildings
Bio-Energy Systems
Materials Science for Energy Applications
Machine Design for Energy Applications
Electrochemical Energy Conversion
Fuels and Combustion Technology

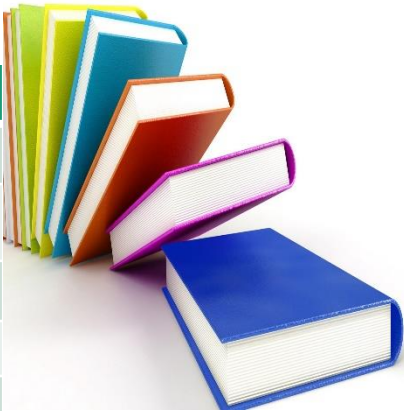
Open Elective
Renewable Energy Resources
Energy and Environment
Energy and Society
Direct Energy Conversion
Rural Energy Technology
Basics of Energy Management

Elective I
Advanced Energy Storage
Advanced PV Technology
Nuclear Power Engineering
Small Hydropower Systems
Organic Photovoltaic Devices
Smart Grid & Hybrid Systems
Advanced Wind energy Systems
Waste to Energy

Mechanical Courses
Theory of Machines
Conventional Power Generation Systems
Steam Power System
I.C. Engines and Gas Turbines
Heat and Mass Transfer Engineering
Refrigeration and Air Conditioning
Fluid Mechanics
Thermodynamics
Numerical Methods & Computational Techniques
Computer programming & Data Structure

Management Courses
Project Management
Energy Auditing & Management
Energy Economics

Elective II
Power Generation Economics
Grid Integration of Renewable Energy Sources
Computer Aided Power System
Energy Efficient Lighting
Hydrogen Energy
Alternative Fuels for Transportation
Energy and Sustainable Development
Environmental Impact Assessment



Electrical Courses
Electromagnetic Energy Conversion
Electric Circuit Theory and Network
Electrical Power Systems
Power Electronics
Measurement and Instrumentation
Control System
Basics of Electronics
Basics of Electrical Engineering



Program offered





State of Art Laboratories & Instruments

Green & Efficient Energy Technology Lab



PHOTOCATLYTIC REACTOR BOX



X-RAY DIFFRACTION (XRD)



SPECTROPHOTOMETER



UV-Vis-DRS

New Generation Photovoltaics Lab.



Main Laboratories

- Basics of Electrical
- Basics of Electronics Lab.
- Solar Thermal Technology Lab
- I.C Engine Lab
- Solar Photovoltaic lab
- Fluid Mechanics Lab
- Mechanics of Solid
- Strength of Materials Lab



SINTERING MACHINE

Laboratories using software



MATLAB



solarGIS



OrCAD  
CADENCE PCB SOLUTIONS



RETScreen  
Expert



eQUEST



ORIGIN 2016  
Graphing & Analysis  
www.originlab.com



pve  
Photovoltaic  
Engineering



PV  
PV\*SOL



PVSYST  
PHOTOVOLTAIC SOFTWARE



## MATCHLESS MENTORS



**Prof. S. K. Samdarshi** (Professor, Head)  
PhD (Solar Energy)  
Years of work experiences: 28  
Publications in international journals: 53  
Books: 04  
Patent: 01  
Email: drksamdarshi@rediffmail.com



**Dr. Basudev Pradhan** (Assistant Professor)  
PhD (Organic solar cells)  
Years of work experiences: 13  
Publications in international journals: 26  
Email: basudev.pradhan@cuj.ac.in



**Dr. Sachin Kumar** (Assistant Professor)  
PhD (Alternate fuel)  
Years of work experiences: 06  
Publications in international journals: 27  
Patent: 01  
Email: sachin.kumar.01@cuj.ac.in



**Dr. Bishnu Mohan Jha** (Assistant Professor)  
Ph.D (Manufacturing)  
Years of work experiences: 06  
Publications in international journals: 07  
Email: bishnu.jha@cuj.ac.in



**Mr. Partha Sarathi Panja** (Assistant Professor)  
M. Tech (Design and Production Engineering)  
Years of work experiences: 30  
Publications in international journals: 03  
Email: partha.panja@cuj.ac.in





## Centre's Updates

### Institutional Recognition:

#### *Centre for Excellence in*

#### *Green and Efficient Energy Technology (GEET)*

*(under FAST scheme of MHRD, Government of India, New Delhi)*



Ministry of Human Resource Development (MHRD), Govt. of India has selected Central University of Jharkhand (CUJ), Ranchi to set-up a Centre of Excellence (CoE) in Green & Efficient Energy Technology (GEET) on the basis of the proposal and presentation evaluated by a team of national and international experts. CUJ is the youngest in the list of 19 prestigious institutions including 7 IITs, 3 IISERs, 2 National Laboratories and 7 others (NITs, and Universities) to get the CoE. All new centres will be devoted to Training and Research in Frontier areas of Science and Technology (FAST). The Centres have the mandate

- ❑ To focus on new and emerging technologies, multidisciplinary and translational research relevant to national development goals.
- ❑ To trigger an R&D culture in the institution as evidenced by significant increase in applications of research outputs, collaborative and sponsored research, publications in reputed national/international journals and conferences, patents, innovations, commercialized products and Masters and PhD enrolments.
- ❑ To bring together high quality researchers of the universities who are active in the complementary areas overlapping energy, water, clean environment and smart materials to develop and aid technologies which are in tune with sustainable development goals of the nation.

### Solar Radiation Resource Assessment (SRRA) Station-CEE, CUJ

MNRE, Centre for Wind Energy Technology (C-WET), Chennai

Ministry of New and Renewable Energy (MNRE) has initiated a major project on Solar Radiation Resource Assessment (SRRA) station across the nation to assess and quantify the solar radiation availability along with weather parameters with a view to develop Solar Atlas. Centre for Wind Energy Technology (C-WET), Chennai is implementing the project by installing a network of 51 Solar Radiation Resource Assessment (SRRA) station in the first phase in different States using high quality, high resolution equipment/instruments. One of such SRRA station was established top of Administrative building in our Permanent campus under Centre for Energy Engineering.





# CENTRAL UNIVERSITY OF JHARKHAND TO HELP IN DEVELOPMENT OF 2 MW SOLAR POWER PLANT

An innovative plan initiated by Centre to establish 2MW Grid-connected Roof Top Solar Photovoltaic Power Plant is being considered for subsidy funding by MNRE with other major institutions and organizations of the country. At a Capacity Utilization Factor of 18% in the region it may help generate funds for the University through feeding of extra power the grid.



## Research and Development Projects:

Establishment of *Center for Excellence in Green and Efficient Energy Technology (CoE-GEET)* under *FAST scheme* of Ministry of Human Resources Development, New Delhi at Central University of Jharkhand, Ranchi(2014-contd.)

S K Samdarshi(Coordinator and PI)  
B Pradhan(PI)  
Sachin Kumar(PI)

Development of High-Efficiency Organic Photovoltaic Devices funded under Ramanujan Fellowship by Department of Science and Technology , New Delhi (2013-17)  
B Pradhan(PI)

Development of Highly Efficient Hybrid Solar Cells funded by UGC New Delhi(2014-2016)  
B Pradhan(PI)

Development of highly efficient inverted organic solar cells funded by SERB-DST New Delhi (2014-2017);  
B Pradhan(PI)

Production of liquid fuel from mixed waste plastics by thermal and catalytic pyrolysis funded by UGC, New Delhi (2014-16)  
Sachin Kumar(PI)

## Ongoing Research Projects

Name of the Investigator	Title of the project & duration	Amount sanctioned (in ₹ Lakh)	Funding Agency
Dr. Basudev Pradhan	Development of High-efficiency organic photovoltaic devices, 5 years (2013-17)	87.40	SERB-DST
Dr. Basudev Pradhan	Development of highly efficient inverted organic solar cells (2014-2017)	23.00	SERB-DST
Dr. Basudev Pradhan	Development of Highly Efficient Hybrid Solar Cells, 3 years (2014-16)	6.00	UGC
Dr. Sachin Kumar	Production of Liquid Fuel from Mixed Waste Plastics by Thermal and Catalytic Pyrolysis, 3 years (2014-16)	6.00	UGC
Prof. S. K. Samdarshi Dr. Basudev Pradhan	Centre of Excellence on Green and Efficient Energy Technology (2014-18)	250	MHRD



## Conference/Seminar/ Training program organized

### THE ENERGIEA (An Energy Society of CUJ)



THE ENERGIEA is an energy society formed by the students of centre for energy engineering and came into existence on 13th February 2014. It aims at providing a platform for students to promote awareness about renewable sources of energy for relating energy with other field of science and engineering. It is also dedicated towards organising various awareness programs for conservation of energy.

### Akshay Urja Diwas, 2014 By The Energiea

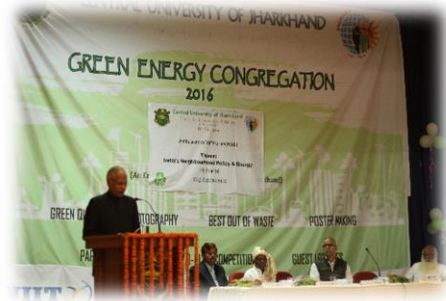
On 20th August 2014, THE ENERGIEA organized a programme on Akshay Urja Diwas, stressing the need for developing and deploying new and renewable energy for supplementing the energy requirement of the country. The inaugural function was graced by Prof Arvind Kumar, head of Mechanical Engineering, BIT, Mesra, as a chief guest in the presence of Prof SK Tiwari, VC (In-charge) of CUJ, Prof Arunabha Datta, dean of academics, Prof SK Samdarshi, head of Centre for Energy Engineering and Mr Shashank, a leading entrepreneur of solar Energy in Jharkhand state besides other faculty members and students. The Logo of this society has a tag line "Power to Power" which means conversion of solar, wind, hydro, geothermal and fossils fuel for efficient energy generation and the people associated with Energiea have the power to generate energy.





## Green Energy Congregation 2016

Green Energy Congregation organized by The Energiea and Central university of Jharkhand . GEC 2016 intends to accelerate the growth of renewable power sector in Jharkhand and contribute to the country's sustainable economic development. The first of its kind in Jharkhand. Its aim to bring companies, academia, students and the government on one platform, paving way for the accomplishment of the revised targets in stipulated time and become a part of the green energy revolution taking place all over India in general and particular in Jharkhand.



## Two days Training on Solar Radiation Resource Assessment (SRRA) Station-CEE, CUJ

Two days training Programme on "Functioning and Maintenance of Solar Radiation Resource Assessment (SRRA) Station officers" of Eastern Region states, jointly organised by Centre for Energy Engineering, CUJ and Centre for Wind Energy Technology (CWET) of Ministry of New and Renewable Energy, New Delhi, on July 1-2,



## One day workshop on solar based robots

Powered by  Roboversity

One innovation each session' [#QEmotto](#). First successful innovation. Lot more to come in this project. Centre for Energy Engineering students created, one of its own kind Energy Free robot.





Industrial Visit



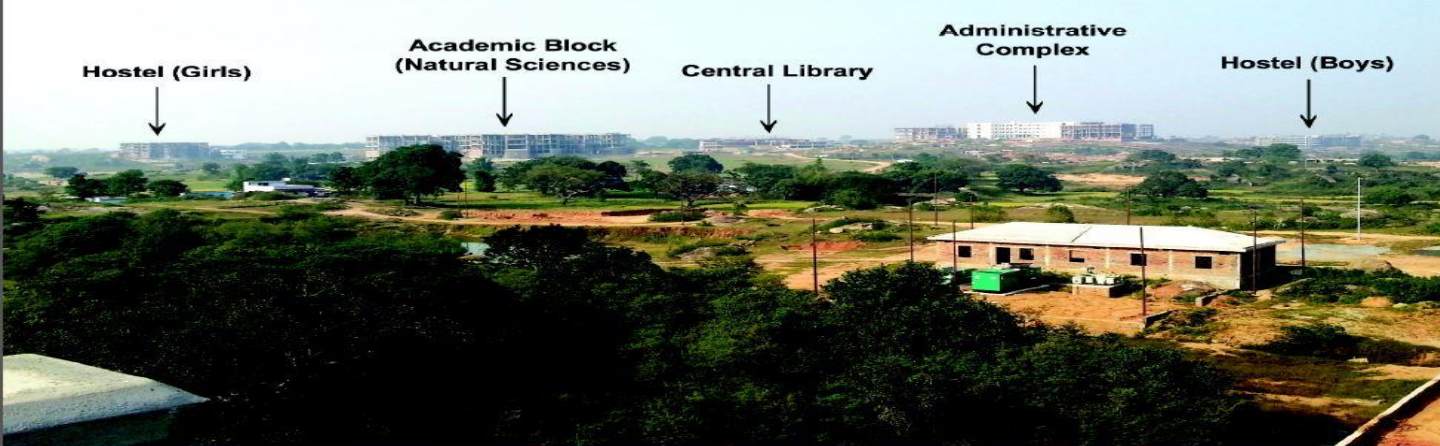


## INFRASTRUCTURE

The present campus of the University is located at Brambe, a 25 km drive from Ranchi city, in the State of Jharkhand, India. It is located in a 45-acre beautiful and vibrant green campus, with classrooms and hostels blending well with the environment. The classroom complex is located inside a mango orchard and the hostels are surrounded by tall Sal trees. In order to preserve the trees, one can find some trees inside the rooms and growing through the roofs. The State Government of Jharkhand allotted a 510-acre land to the University for its Permanent Campus at Cheri-Manatu, about 10 km off main city, construction work has started with a plan to create a campus worth visiting and staying in. The campus is planned to be matchless in its own right by offering an eco-friendly environment for academic pursuit among green architecture and designs, which would beckon scholars to its fold.



**New Campus at Cheri-Manatu under construction**



### Central Library

The Central library, serves as the powerhouse for research and studies for the entire University. Spread over three floors, the library is an invaluable resource with 61,800 books and 20,000 back volumes of periodicals. It is automated with an integrated library software package called Libsys-LSmart and modernized with latest Radio Frequency Identification (RFID) based automation system. The online repository hosted by the library also hosts every paper, dissertation and thesis published by the students and faculty.





## Computer Centre

The Central Computer Centre offers round the clock services with an uninterrupted power supply to students on the campus with the latest infrastructure supporting research and studies at the campus.

The computer centre hosts the latest IBM servers with a storage capacity of up to 100TB

Campus is having high speed internet facility. The institute has a 24X7 Wi-Fi facility in the University campus for the student and faculty members to avail internet connection at any place in the University, hostel & faculty houses.

## GYM/Sports Facility

There are three indoor gyms and a large sports arena with coaches in eight different sports disciplines.

Extracurricular activities is made compulsory. Options would be increased and facilitated.

An outdoor Sports Arena has been developed. This has playing and practice grounds for cricket, football, hockey, volleyball, tennis hard court and badminton. Table tennis is played indoors.

Indoor sports training rooms have also been developed. These include three separate gyms for boys, girls and staffs

Trained coaches have been engaged to train the students and interested staff in yoga, wushu, football, badminton, hockey, volleyball, table tennis.

- The sports training for the CUJ students started in the month of Aug 09 in the Sports Complex in the disciplines: Cricket, Badminton, Hockey, Football, Volleyball, Table Tennis and Wushu.
- Yoga classes on campus held in the morning hours for the students.
- A Physical instructor is always present at every sports session.

## Smart Class Rooms

Centre for Energy Engineering providing state of art Smart class rooms with highly equipped up-to-date computerized systems to fulfil quality teaching experience

- Ultra Short Throw LCD Projector
- Smart board with Bluetooth Connectivity
- New Generation PC
- Document camera with writing pad
- 120" Motorized Screen with remote control





## FACILITIES FOR RECRUITERS

### Auditorium

There is a 400 seater auditorium at Central University of Jharkhand temporary campus at Brambe

The auditorium provides outstanding acoustics and clear sightlines from all seats.

The auditorium is equipped with lightening system, audio system, Internet facility, Projection System and video conferencing system.



### Lecture Halls and Conference Rooms



### International Guest House





## STUDENTS PORTFOLIO



### ADITI ORAON

**Email:** [aditioraonadi123@gmail.com](mailto:aditioraonadi123@gmail.com)

**Area of Interest:** Biofuels ,Solar Photovoltaic

**Project/Work(s) Done:** *Practices on biofuels from IRS(ONGC, Ahmedabad)*



### ADYA ISHA

**Email:** [adya.isha@cuja.ac.in](mailto:adya.isha@cuja.ac.in)

**Area of Interest:** Waste to Energy

**Project/Work(s) Done:** 1. *Triple effect Solar Vapour absorption system, NISE (MNRE), Gurgaon*  
2. *Kitchen waste to biogas, CUJ, JHARKHAND*



### ASHUTOSH PANDEY

**Email:** [ashutosh.pandey@cuja.ac.in](mailto:ashutosh.pandey@cuja.ac.in)

**Area of Interest:** Solar Cell (Organic, Hybrid, DSSC), Energy Auditing, Wind Energy, Nuclear Energy.

**Project/Work(s) Done:**

1. *A Study of Variation in Solar Radiation, NIWE(Chennai)*
2. *Fabrication, Characterization and Performance Evaluation of Dye-Sensitized Solar cell (DSSC) at CUJ Ranchi.*



### ASTHA SINGH

**Email:** [astha.singh.01@cuja.ac.in](mailto:astha.singh.01@cuja.ac.in)

**Area of Interest:** Solar Photovoltaic, Solar Thermal , Energy Auditing

**Project/Work(s) Done:**

1. *Fabrication of solar cell (CdSe), CUJ, RANCHI*
2. *Performance analysis of Triple Effect Vapour Absorption Machine from NISE (MNRE), Gurgaon*



### BAPI KUMAR DAS

**Email:** [bapi.das@cuja.ac.in](mailto:bapi.das@cuja.ac.in)

**Area of Interest:** Solar Photovoltaic, Green building, Energy Auditing

**Project/Work(s) Done:**

1. *Performance Analysis of Crystalline Silicon, CdTe and CIGS Technology Modules in Outdoor Condition, NISE (MNRE), Gurgaon, Haryana*
2. *Efficient Lighting System, CUJ, RANCHI*

**Research papers:** series resistance measurement of solar PV modules using mesh in real outdoor condition in ICAER-2015 at IIT-Bombay.



## STUDENTS PORTFOLIO



### DEEPAK RAJ

Email: [draj8529@gmail.com](mailto:draj8529@gmail.com)

**Area of Interest:** Smart Grid, Power system(Renewable), Machine learning, bio-energy

**Project/Work(s) Done:**

1. Machine learning algorithm, CUJ, RANCHI.
2. Maximum power point tracking of a solar photovoltaic array using different AI techniques, CUJ, RANCHI.



### DHARMVEER KUMAR

Email: [dhkwrs@gmail.com](mailto:dhkwrs@gmail.com)

**Area of Interest:** Solar Photovoltaic, Forecasting and influencing technology in renewable energy, Energy Efficient Building

**Project/Work(s) Done:**

1. Fabrication, Characterization and Performance Evaluation of DSSC, CUJ, RANCHI
2. Performance Analysis of Solar PV . MANIT, Bhopal
3. PTPS, Patratu

**Research papers:** Microbial Fuel Cell-Methodology and Technology for Green Energy Generation (Under Review) in Renewable and Sustainable energy Reviews Journal



### FARAZUDDIN AZLAN

Email: [farazuddinazlan@gmail.com](mailto:farazuddinazlan@gmail.com)

**Area of Interest:** Fabrication of solar cell-Quantum dots, Dye sensitized solar cell, Solar Photovoltaics., Energy Management

**Project/Work(s) Done:**

1. Performance Analysis of Crystalline Silicon, CdTe and CIGS Technology Modules in Outdoor Condition. NISE (MNRE), Gurgaon
2. Synthesis and characterization of ZnO as photoactive sensitizers.

**Research Paper:** series resistance measurement of solar PV modules using mesh in real outdoor condition in ICAER-2015 at IIT-Bombay.



### JAI SHREE BHARDWAJ

Email: [jaishree.cuj@gmail.com](mailto:jaishree.cuj@gmail.com)

**Area of Interest:** Solar Photovoltaics, Energy Auditing

**Project/Work(s) Done:**

1. PAT( Perform Achieve and Trade), BEE, NEW DELHI
2. Industrial Training at Patratu Thermal Power Station



### KAJOL

Email: [kajolkangan@gmail.com](mailto:kajolkangan@gmail.com)

**Area of Interest:** Solar energy, Solar Thermal, Power electronic

**Project/Work(s) Done:**

1. Analysis of concentrated solar cell under various concentration and temperature , IIT Madras



## STUDENTS PORTFOLIO



### KARUNA PANDEY

**Email:** [pandeykaruna9@gmail.com](mailto:pandeykaruna9@gmail.com)

**Area of Interest:** Energy Auditing, Fabrication solar cells, fuel cells and batteries.

**Project/Work(s) Done:**

1. Characterization of nanomaterials. CUJ, RANCHI
2. Characterization and Optimization of Paraboloid Dish Technologies. NISE (MNRE), Gurgaon
3. BOKARO STEEL PLANT, Bokaro



### KAVISHA SHUNYO

**Email:** [kavisha.shunyo@cuja.ac.in](mailto:kavisha.shunyo@cuja.ac.in)

**Area of Interest:** Solar PV ,Bio energy

**Project/Work(s) Done:**

1. Characterization and Optimization Of Parabolic Trough Collector, NISE (MNRE),Gurgaon.
2. Fabrication of solar cell (CdSe), CUJ, RANCHI



### MADHAVI SINGH

**Email:** [madhavi.singh@cuja.ac.in](mailto:madhavi.singh@cuja.ac.in)

**Area of Interest:** Energy auditing, Solar cell (quantum dot solar cell, DSSC), Batteries, supercapacitors

**Project/Work(s) Done:**

1. characterization of nanomaterials for solar cells. CUJ, RANCHI
2. Characterization and Optimization of "parabolic trough collector. NISE, (MNRE)
- 3.Industrial training . PTPS, Patratu



### MANISH KUMAR

**Email:** [manish.verma.jsr@gmail.com](mailto:manish.verma.jsr@gmail.com)

**Area of Interest:** Solar PV ,Energy Policies & Consulting ,Green Buildings

**Project/Work(s) Done:**

1. A study of variation of Solar Radiation on tilted surface, NIWE
2. Demand Side Management, CFD Analysis, building simulation, PVSyst modelling, Shading analysis using Sketchup , SLD in Autocad



### TAHIR AHMED

**Email:** [tahirahmed968@gmail.com](mailto:tahirahmed968@gmail.com)

**Area of Interest:** Solar Photovoltaic, Energy Auditing, Green Building

**Project/Work(s) Done:**

- 1.Electrical Safety Auditing, Monitoring & Controlling of Energy Power System Alstom India Ltd. Durgapur
2. Energy Efficient Lighting System, CUJ, RANCHI

**Research papers:** Efficient Power Plant(Paper Under Review)



## STUDENTS PORTFOLIO

**PRANAV ANAND**

Email: pranavcuj.95@gmail.com

**Area of Interest:** Solar photovoltaics, Energy Management, Bioenergy**Project/Work(s) Done:**

1. *Synthesis, characterization Solar Cell DSSC, CUJ, RANCAHI*
2. *Performance Analysis of Crystalline Silicon, CdTe and CIGS Technology Modules in Outdoor Condition, NISE( MNRE), Gurgaon*
3. *Biogas Production and Characterisation of biogas, Tezpur University*

**Research papers:** series resistance measurement of solar PV modules using mesh in real outdoor condition in ICAER-2015 at IIT-Bombay.**PRATUSH SHRIVASTAVA**

Email: pravas907@gmail.com

**Area of Interest:** Solar Photovoltaic systems, Thermodynamics and Electrical Machines**Project/Work(s) Done:**

1. *Energy Efficient Electric Lighting for Buildings, CUJ, RANCHI.*
2. *Study of Assessment of Solar radiation on tilted surfaces", CWET, Chennai.*
3. *Study of Solar Rooftop Policy of Indian States, Azure Power India Ltd. New Delhi.*

**RATAN KUBER**

Email: rattan.kuber@cuj.ac.in

**Area of Interest:** Grid Connected solar power, Solar Photovoltaic Energy Auditing (Thermal, Steel Plants)**Project/Work(s) Done:**

1. *Designing of Isc Circuit using Op-Amp and performance analysis of Crystalline Silicon, CdTe Technology modules in outdoor conditions. NISE(MNRE), Gurgaon*
2. *Installation of Rice husk based Biomass gasifier plant , (Jharkhand).*

**Research papers:** Series Resistance measurement of Solar PV modules using Mesh in Real Outdoor Condition. At 5th ICAER at IIT Bombay.**SAMEER KUMAR MAURYA**

Email: sameermaurya2@gmail.com

**Area of Interest:** Energy management & auditing, Solar photovoltaics, Energy efficient buildings**Project/Work(s) Done:**

1. *Testing and Data Analysis of Solar Street Lights, CUJ, RANCHI*
2. *Experimental Studies on Microbial Fuel Cell, MANIT, Bhopal, M.P*
3. *Manufacturing, Assembly and Testing of Engine parts used for Diesel Locomotives, Varanasi (DLW)*

**Research papers:** Performance Analysis of Automated Solar PV Integrated Smart Greenhouse", IJSRD- 2015**SATYA PRAKASH PANDEY**

Email: pandey.satya96@gmail.com

**Area of Interest :** Biofuel, Solar Photovoltaic, Energy Auditing, Waste to Energy**Project/Work(s) Done:**

1. *Kitchen waste to biogas. CUJ, RANCHI*
2. *Production and characterization of biogas . Tezpur University*
3. *Industrial training , (P.T.P.S),Jharkhand*



## STUDENTS PORTFOLIO



### SOURAV RANJAN

**Email:** saurran@gmail.com

**Area of Interest:** Solar Photovoltaic, Energy efficient Building, Biofuel

**Project/Work(s) Done:**

1. Biodiesel production from soyabean oil and its quality assurance. IIT-BHU
2. Energy efficient Lighting system in Commercial and Household Building CUJ, RANCHI



### SHIKHA KUMARI

**Email:** shikha.kumari.01@cuja.ac.in

**Area of Interest:** Solar Energy, Energy Auditing and Management, Bio-energy, Energy Efficient Building

**Project/Work(s) Done:**

1. Power Generation and Energy Efficiency and Management- NTPC, Farakka
2. Characterization and Optimization of Parabolic Trough Collectors, NISE
3. Industrial Training in BPSC, Bokaro Steel City



### SHUBHANGSHU SARDAR

**Email:** Sardar.shubhangshu70@gmail.com

**Area of Interest:** Bioenergy, solar photovoltaic

**Project/Work(s) Done:**

1. Experimental Studies on Microbial Fuel Cell, Solar Greenhouse Automation MANIT, Bhopal, M.P



### SOMIKA SINHA

**Email:** smksinha46@gmail.com

**Area of Interest:** Growth of silicon nanowires, Energy storage devices, Fabrication of solar cells, Thin film solar cells.

**Project/Work(s) Done:**

1. Vocational training in material handling section, Sintering Plant, Steel Melting, Shop and Finishing Shops. SAIL-BOKARO
2. Characterization and Optimization of Paraboloid Dish Technologies. NISE(MNRE), Gurgaon



### SONAM SINHA

**Email:** sonam.sinha@cuja.ac.in

**Area of Interest:** Green Building, Project Management, Solar Photovoltaic Energy Management and Energy Efficiency

**Project/Work(s) Done:**

1. Simulation Model for hybrid Renewable Energy System, CUJ RANCHI
3. PAT, ENCON at BEE, NEW DELHI
2. Study of Operation of Thermal Power Plant and Electricity P.T.P.S. Patratu



## STUDENTS PORTFOLIO

**SONI KUMARI**

**Email:** sonyraman.cuj@gmail.com

**Area of Interest:** Solar energy ,Energy efficient Building.

**Project/Work(s) Done:**

1. PAT, ENCON at BEE , NEW DELHI
2. training at thermal power plant, PTPS, Patratu

**SONIA SASMAL**

**Email:** sst2901@gmail.com

**Area of Interest:** Biofuels, Solar Photovoltaic, Energy Audit

**Project/Work(s) Done:**

1. Performance analysis of Solar Photovoltaic distillation system, NISE(MNRE)-Gurgaon
2. Production of biofuel from non edible seeds and kitchen wastes. CUJ, RANCHI

**SWATI BHUSHAN**

**Email:** swatibhushan1108@gmail.com

**Area of Interest:** Energy Policies, Energy Management & Auditing, Solar Photovoltaics, Energy Efficient Building

**Project/Work(s) Done:**

1. Study of PAT (Perform, Achieve & Trade), BEE, NEW DELHI
2. Study of the functioning of the Power Plant [BPSCL, SAIL Bokaro]
3. Hybrid Power Generation [ CUJ, RANCHI]

**VINAY PRAKASH**

**Email:** vinay.prakash@cuj.ac.in

**Area of Interest:** Solar PV, Energy Efficient Buildings, Energy Management and Consultancy Alternate-Fuels

**Project/Work(s) Done:**

1. Testing And Data Analysis Of Solar Street Light. CUJ, RANCHI
2. Study of Variation in Solar Radiation On Tilted Surface. NIWE, Chennai
3. A Study of Power System DRDO, Chandipur, Odisha.

**VIVEK KRISHNAN**

**Email:** vivek.krishnan@cuj.ac.in

**Area of Interest:** Solar energy, Green Building /Sustainability, Biomass energy, Energy Auditing.

**Project/Work(s) Done:**

1. Designing of Isc Circuit using Op-Amp and Performance Analysis of Crystalline Silicon, CdTe Module in outdoor conditions. NISE(MNRE)
2. Installation of Rice husk based Biomass gasifier Plant ( Jharkhand)

**Research Papers:** Series Resistance measurement of Solar PV Modules using Mesh in Real Outdoor condition, ICAER, IIT-MUMBAI



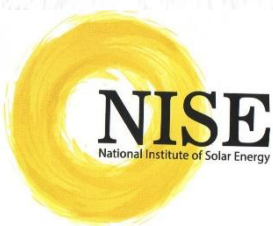


LIFE@CUJ





## PAST RECRUITERS



Government of India  
Department of Science & Technology  
Ministry of Science & Technology





## INTERNSHIPS & PROJECTS



सत्यमेव जयते

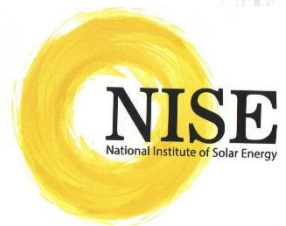
Ministry of New and Renewable Energy  
Government of India



Government of India  
Department of Science & Technology  
Ministry of Science & Technology



JHARKHAND RENEWABLE ENERGY  
DEVELOPMENT AGENCY  
RANCHI



सेल SAIL



Heavy Engineering Corporation Ltd.  
(A GOVERNMENT OF INDIA ENTERPRISE)  
Ranchi, India



vikram solar  
vision in action

TATA MOTORS



C-WET



Birsa Agricultural University  
Kanke, Ranchi, Jharkhand





The map displays the Ranchi region in Jharkhand, India. A red pin marks the location of the Central University of Jharkhand. The map shows a network of roads, including National Highway 39 and State Road 2. Key locations labeled include Mesal, Sursa, Belangi, Burju, Funchastle, Tendar, Sundil, Kamre, Pandra, Hehal, Simlia, Hetha, Gutuwa, Saporom, Nagri, Barsa, Kurgi, Loiva, Itki, Malti, Piska, Balalong, Harser, Bandheya, Kanke, Boreya, LALPUR, Ranchi, KADRU, Birsu Munda Airport-Ranchi, and Department of Tourism. The map also shows the Borey Rd, Borey Rd, and Namkum Main Rd.

