



WEENTECH

Global Conference on Renewable Energy (GCRE2015)

04 – 06 March 2015

Organised by

**Department of Mechanical Engineering, National Institute of Technology,
Patna, India**

and

World Energy and Environment Technology, United Kingdom

at

Department of Mechanical Engineering, NIT Patna, India



Conference Chair

Prof. Om Prakash, Department of Mechanical Engineering, NIT Patna

DAY 01 – Friday, March 04 , 2015
Convention Hall, NIT Patna, Patna

14:00 – 14:30	Registration
14:30 – 14:35	All participants and invited guests are seated
14:35 – 15:40	Conference Inauguration and Opening Welcome Lectures
15:40 – 16:00	Tea/Coffee Break

Day 01 : Afternoon Technical Session		
Technical Session I (Conference Hall 1)		
Session Chair: Om Prakash		
16:00 – 16:20	Invited Talk: Dr. Renu Singh, IARI, New Delhi, India	
16:20 – 16:40	Invited Talk	
16:40 – 17:00	Amit Kumar	Comparative study of the control strategies for the doubly fed induction generators in wind energy conversion system

DAY 02 – Saturday, March 05, 2016
Department of Mechanical Engineering, NIT Patna

Day 02 : Morning Technical Session		
Technical Session II (Conference Hall 1)		
Session Chair: Om Prakash		
10:00 – 10:20	Harbhajan singh	Wind power integration impacts and investigations
10:20 – 10:40	Sreejith B K	Design of Small Scale Wind Turbine Blade for Low Wind Potential Areas
10:40 – 11:00	Rashmi.P.Shetty	Prediction of wind turbine power using ANN
11:00 – 11:20	Tea Break	
11:20 – 11:40	Abhishek Goyal	A computational fluid dynamics study on stall controlled wind turbines
11:40 – 12:00	Maloy Das	Power quality improvement of self excited induction generator using statcom based voltage regulator
12:00 – 12:20	Reshu Rathi	Performance Analysis Of Wind Turbines During Uncontrolled Operation
12:20 – 12:40	Poonam Suraj	Effect of wind integration in radial distribution system by reducing losses using GA technique
12:40 – 13:00	Arun Kumar Behura	Thermal performance enhancement in three sides artificially roughened and glass covered solar air heaters
13:00 – 14:00	Lunch Break	
Day 02 : Morning Parallel Technical Session		
Technical Session III (Conference Hall 2)		
Session Chair: Neetu Singh		
10:00 – 10:20	Dheerandra Singh	Energy simulation of roof top solar pv system for an educational building in india
10:20 – 10:40	M Vijay Kumar	Evaluation of Performance and Emission Characteristics of Biodiesel Blends with diesel in a Single Cylinder DI Diesel Engine
10:40 – 11:00	Neetu Singh	Increased energy efficiency through educating masses
11:00 – 11:20	Tea Break	
11:20 – 11:40	Hemant Kumar Singh	Economic insulation thickness of external walls in hot and composite regions of India
11:40 – 12:00	Manish Sharma	Performance analysis of solar powered organic rankine cycle for different pressure ratios
12:00 – 12:20	Snigdha Lal	Heat extraction mechanism to maintain electrical efficiency of a single solar cell
12:20 – 12:40	Dilawar Husain	Energy efficient design of an institutional building in India
12:40 – 13:00	M Vijay Kumar	Experimental investigations of emissions and performance of a diesel engine using diesel and waste plastic oil by multi fuel injectors
13:00 – 14:00	Lunch Break	

Day 02 : Afternoon Technical Session		
Technical Session IV (Conference Hall 1)		
Session Chair: Alagu Dheeraj		
14:00 – 14:20	Amulyacharya Malviya & Chandrakanta Mall	UV-visible Spectroscopic and Photochemical Characterization of Safranin-Fructose-Sodium Lauryl Sulphate System in Photogalvanic Cells
14:20 – 14:40	Sreesankaran M Namboothiri	Solar refrigeration and air conditioning: a newfangled review
14:40 – 15:00	Dileep M. Paul	A review on power-to-gas energy storage technology
15:00 – 15:20	Tea Break	
Session Chair: Rajini		
15:20 – 15:40	Kaushlendra Kumar	A Novel Power Factor Correction Technique for Three Phase Rectifier System Employing Boost Topology
15:40 – 16:00	Kamaljyoti Talukdar	Thermodynamic analysis of a combined vapor power cycle and absorption refrigeration system with coal and municipality solid waste
16:00 – 16:20	Alagu Dheeraj	Interleaved Center Clamp Forward(ICCFC)erter converter for Microprocessors
16:20 – 16:40	Israr Ahmad	Investigation of natural convection in a differentially heated room with ventilation and transpiration port
16:40 – 17:00	Manjunath P	Incineration: A comprehensive review
17:00 – 17:20	Rakesh Kumar	Studies on polyfurfuryl alcohol modified cellulosic fibre as renewable fuel
Day 02 : Afternoon Parallel Technical Session		
Technical Session V (Conference Hall 2)		
Session Chair: Renu Singh		
14:00 – 14:20	Amit Hussain	Application of MBBR and UASB in Treatment of Municipal Waste Water
14:20 – 14:40	Sunket Kashyap	Treatment of industrial wastewater containing oil and grease
14:40 – 15:00	Ramchandra Marandi	Novel control topology for hybrid energy system under grid and islanding mode
15:00 – 15:20	Tea Break	
Session Chair: Ashish Shukla		
15:20 – 15:40	Rajesh Kumar	Combustion and emission characteristics of pine needles in oxy-fired bubbling fluidized bed
15:40 – 16:00	Abhishek Priyam	Comparative study of solar air heater having wavy fin and longitudinal fin
16:00 – 16:20	Rohini Singh	Synthesis and characterization of copper modified TiO ₂ photocatalyst with enhanced visible light activity for hydrogen production
16:20 – 16:40	Amandeep Singh	Voltage Control Issues in Smart Grids-A Recent Perspective
16:40 – 17:00	Ravita Saraswat	Cost and Sensitivity Analysis of Hybrid System at different places in Haryana
17:00 – 17:20	Dhananjay Singh Yadav	Numerical Analysis of Methane-Air Laminar Diffusion Flame with CO ₂ Dilution

DAY 03 – Sunday, March 06, 2016
Department of Mechanical Engineering, NIT Patna

Day 03 : Morning Technical Session		
Technical Session VI (Conference Hall 1)		
Session Chair: Khalid Anwar		
10:00 – 10:20	Rajesh Kumar	Thermal and exergetic performance analysis of longitudinal fins solar air heater
10:20 – 10:40	Ashwini Kumar	Performance characteristics of three sides artificially roughened solar air heaters
10:40 – 11:00	Ravi Kumar	Heat Transfer Augmentation In Different Configuration Solar Air Heater
11:00 – 11:20	Tea Break	
11:20 – 11:40	Khalid Anwar	Modeling and management of Microgrid, its future with associated barriers and success factors
11:40 – 12:00	Ravikiran kumar singh	CFD simulation heat transfer of earth air tube heat exchanger with longitudinal fins
12:00 – 12:20	Tuna Nahak	Solar photovoltaic module with power quality features
12:20 – 12:40	Prince Sharma	Modeling and performance evaluation of hybrid wind/diesel generation system
12:40 – 13:00	S Uma	Digestibility of food waste for biogas production
13:00 – 14:00	Lunch Break	
Day 03 : Morning Parallel Technical Session		
Technical Session VII (Conference Hall 1)		
Session Chair: Apurba Layek		
10:00 – 10:20	Piyush Pal	Comparative study of different types of modified solar stills
10:20 – 10:40	Anuj Kumar	Piezoelectric Energy Harvesting: A New Approach
10:40 – 11:00	Durga Prasad	Analysis and modelling of two stage grid connected photovoltaic system
11:00 – 11:20	Tea Break	
11:20 – 11:40	Neha Agarwal	Comparative performance of cascaded h-bridge multilevel inverter with varying levels for pv system
11:40 – 12:00	Rajini	Implementation of PIC based hybrid converter for hybrid stand alone system
12:00 – 12:20	Gaurav Chaudhary	Estimates of emissions from thermal plants in India and method to reduce down these emissions and running cost of air conditioner
12:20 – 12:40	Ali Algaddafi	A Novel Power Factor Correction Technique for Three Phase Rectifier System Employing Boost Topology
12:40 – 13:00	Rajdeep Surya	Performance Analysis of Doubly-fed Induction Generator under specific condition
13:00 – 14:00	Lunch Break	

Day 03 : Afternoon Technical Session		
Technical Session VIII (Conference Hall 1)		
Session Chair: Om Prakash		
14:00 – 14:20	Priyabrata Adhikary	Turbine selection for small hydropower plant: A multi criteria optimization technique approach
14:20 – 14:40	Priyanka Jain	Voltage stability enhancement using modal analysis and contingency analysis using CPF with facts
14:40 – 15:00	Som Nath Saha	A parametric study on the performance of double glass double flow solar air heater
15:00 – 15:20	Himanshu Rana	Computed PID-SMC controller for tracking of two link robotic manipulator and comparative analysis
15:20 – 15:40	Priyabrata Adhikary	A cup of power in rural locations: Case study of micro hydropower generation from drinking water
15:40 – 16:00	Ranjeet Singh	Performance analysis of cascaded h-bridge multilevel inverter for application in solar-hydrogen system
16:00 – 16:20	Tea Break	

Day 03 : Afternoon Parallel Technical Session		
Technical Session IX (Conference Hall 2)		
Session Chair: Priyabrata Adhikary		
14:00 – 14:20	Deep Singh Thakur	Parametric investigation of artificially roughened solar air heater with parabolic rib geometry
14:20 – 14:40	Apurba Layek	Effect of depth of water and additives on the performance of solar still
14:40 – 15:00	Ritu Pawar	Optimal sizing of renewable hybrid energy system using Genetic Algorithm
15:00 – 15:20	Amit Hussain	Performance Evaluation of Moving Bed Biological Reactor (MBBR) Based Sewage Treatment Plant
15:20 – 15:40	Rahul	Assessment of wind energy potential as a power generation source in four metro cities of India
15:40 – 16:00	Kirti Tewari	Performance analysis of modified solar water heating system with wind velocity
16:00 – 16:20	Tea Break	

Closing Ceremony (Convention Hall, NIT Patna)	
16:20	Report on the conference
16:30	Award Ceremony
16:50	Vote of Thanks

List of Posters

Priyabrata Adhikary	Energy recovery in existing infrastructures with small hydropower plants: A review
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* Session Chair responsibility is to introduce speaker, give participation certificate and facilitate completion of the session on time. If session chair is unavailable, speakers can nominate someone present during the technical session.

If you have your poster presentation please deposit your A1 Size Poster on registration desk, contact conference@weentech.co.uk for poster and presentation templates.