

Resume



Name : Dr. Debasish Das
Designation : Assistant Professor
Department : Mechanical Engineering
Qualification : PhD (Jadavpur University)
Phone : 4752
Email ID : debasish@nith.ac.in
Profile URL : <https://portfolios.nith.ac.in/index.php?nith/dr-debasish-das>

Other Profile Links

Research Gate Link :

Personal Web Link : <https://portfolios.nith.ac.in/index.php?nith/dr-debasish-das>

Google Scholar Link :

Research Profile

Research Interests : Thermal Engineering

Brief Research Profile :

Qualification

Name of the Degree	Year Of Passing	Institute/University
B. Tech.	2003	Kalyani Government Engineering College, Kalyani University
M. Tech.	2005	Indian Institute of Technology, Kharagpur
Ph.D.	2015	Jadavpur University

Publications

Year	Journal	Publication	Indexed In
2017	Heat and Mass Transfer, Springer	Experimental investigation for the performance of triangular fin array within a rectangular enclosure in natural convection dominated region	SCI
2016	Biofuel, Taylor & Francis	Performance and emission evaluation of diesel engine fuelled with biodiesel produced from high free fatty acid crude soyabean oil	SCOPUS
2015	J. Inst. Eng. India Ser. C, Springer	Application of Taguchi Philosophy for Optimization of Design Parameters in a Rectangular Enclosure with Triangular Fin Array	SCOPUS
2018	Journal of Mechanical Science and Technology, Springer	Performance of heated fin arrangement in rectangular cavity- An experimental approach	SCI
2018	Heat and Mass Transfer, Springer	Analysis of natural convection heat transfer through staggered pin finned horizontal base plate within a rectangular enclosure	SCI
2014	J. Inst. Eng. India Ser. C, Springer	The Effects of Thermal Barrier Coatings on Diesel Engine Performance and Emission	SCOPUS
2017	Biofuel, Taylor & Francis	Evaluation of performance, emission and combustion characteristics of diesel engine fuelled with castor biodiesel	SCOPUS
2012	Procedia Engineering, Elsevier	Thermal barrier coating- Applications, stability and longevity aspects	SCI
2018	Biofuel, Taylor & Francis	Evaluation of performance, emission and combustion characteristics of ci engine fuelled with karanja biodiesel and diethyl ether blends	SCOPUS
2013	J. Inst. Eng. India Ser. C, Springer	Parametric Optimization of Heat Transfer from Triangular Fin Array within a Rectangular Enclosure using Design of Experiment (DOE)-A Comparative Analysis	SCOPUS
2019	International Journal of Surface Engineering and Interdisciplinary Materials Science	Plasma Sprayed WC-12%Co-Coatings for TBC Applications on Diesel Engine Piston	SCOPUS
2019	Int. J. Computational Materials Science and Surface Engineering 8	Thermo-mechanical evaluation of plasma sprayed YSZ-based multi-layered thermal barrier coatings	SCI Extended
2020	Fuel	Analysis of performance, emission, combustion and endoscopic visualization of micro-arc oxidation piston coated SI engine fuelled with low carbon biofuel blends	SCI
2019	Heat and Mass Transfer	Experimental determination of buoyancy induced convection heat transfer characteristics in a rectangular cavity with cylindrical porous medium fixed between pin fins	SCI
2021	International Journal of Ambient Energy	Comparative evaluation of performance, emission and combustion characteristics of CI Engine fuelled with Neem Biodiesel with the addition of Methanol and Diethyl-Ether	SCI

Edited Book/Book Chapter

Type	Title	Publisher	Authors	ISBN/ISSN No.	Year
Reference	Hand book of Mechanical Engineering	DBS Imprints	Debasish Das	978-93-86648-44-0	2020
Reference	Hand book of Theory of Machines	DBS Imprints	Shailendra Singh Bhadauria & Debasish Das	978-93-86648-52-5	2019
Book Chapter	Performance, Emissions, and Combustion Evaluations of a Diesel Engine Fuelled with Biodiesel Produced from High FFA Crude Mahua (Madhuca longifolia) Oil	Intech Open	A Hira, D Das and R Thakur	DOI: http:	2020

Research Projects

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Co-PI	MHRD Sanctioned	Effect of nano particles blending on Performance & Emission of Diesel and Biodiesel in a CI Engine	National Project Implementation Unit, MHRD	18/06/2019	22/10/2020	18.5 Lakh	Ongoing	Dr. B. L. Gupta

Research Supervision

Programme Name	Scholar Name	Research Topic	Status	Year	Co-Supervisor
M.Tech	Manoj Kumar Pathak	A 3-D Numerical analysis on natural convection In narrow rectangular enclosure with heated finned base plate	Completed	2012	
M.Tech	Ajay Kumar Saini	Optimization of experimental performance & emission characteristics of a functionally graded material coating on the top of the Diesel Engine piston	Completed	2012	
M.Tech	Arun Kumar Sharma	Extraction of biodiesels by catalized transesterification and its experimental investigation to evaluate performance emission and combustion characteristics	Completed	2013	
M.Tech	Ankur Dwivedi	Natural convection heat transfer analysis for rectangular enclosure with heated triangular finned base plate	Completed	2013	
M.Tech	Alwar Singh Yadav	Experimental investigation to evaluate performance, combustion and emission characteristics of diesel engine with castor, karanja and mahua oil biodiesel	Completed	2014	
M.Tech	Kamal Raj Sharma	Thermo physical investigation of partially stabilized zirconia coated on Al ₂ O ₃ bond coat over piston head of a diesel engine	Completed	2014	
M.Tech	Gaurav Kumar	Experimental investigation of optimum parametric design for natural convection heat transfer within a triangular enclosure with heated rectangular finned base plate	Completed	2014	
M.Tech	Adarsh Soni	Experimental Investigation of Natural Convection Heat Transfer through Finned Base Plate	Completed	2015	
M.Tech	Est Dev Patel	An experimental investigation of natural convective heat transfer within a triangular enclosure with heated rectangular staggered finned base plate	Completed	2015	
M.Tech	Amrendra Kumar	Experimental investigation to evaluate performance, emission and combustion characteristics of diesel engine with sesame, olive and turpentine oil biodiesel	Completed	2015	
M.Tech	Amit Tripathi	Thermal and Thermophysical investigation of different thickness of TBC materials on Diesel engine Substrate	Completed	2015	Dr. Vishal Singh
M.Tech	Anchal Yadav	Experimental evaluation of performance, emission and combustion characteristics of ci engine fuelled with KARANJA-DIESEL-METHANOL And KARANJA-DIESEL-DEE	Completed	2016	Dr. Anoop Kumar
M.Tech	Satya Prakash Verma	Experimental analysis of natural convection heat transfer through staggered pin fin and porous medium in a rectangular enclosure	Completed	2016	
M.Tech	Amit Kumar	Parametric investigation of natural convection heat transfer within triangular enclosure with heated pin finned base plate	Completed	2016	
M.Tech	Vipul Kumar Pathak	Experimental Study of Microstructure and Stability Analysis of TBC Coated Diesel Engine Pistons by ThermoPhysical and Material Testing	Completed	2016	
M.Tech	Chaitanya Singapuri	Comparative experimental investigation of natural convection in rectangular enclosure with pin fins and different sizes of porous medium of equal volume	Completed	2017	
M.Tech	Ranbir Sharma	Experimental evaluation of performance, emission and combustion characteristics of CI engine fueled with biodiesel of neem oil and mahua oil using methanol and diethyl-ether as additives	Completed	2017	
M.Tech	Anshu Pandit	Experimental analysis on effect of nano fluid additives blending on performance emission and combustion of diesel and biodiesel fuel in a C I Engine	Completed	2018	
Ph.D	Vishal Kumar	Experimental Investigation of biodiesel in modified diesel engine	Ongoing	2018	
M.Tech	Rajesh Kumar	Experimental Investigation to Investigate Different Heat Transfer Parameter with Different Shape of Fin Geometry into Triangular Enclosure	Completed	2020	
M.Tech	Shubham Agarwal	Evaluation of performance, Emission and Combustion characteristics of C.I. Engine fueled with biodiesel and some additives	Completed	2020	
Ph.D	Biswajit Sahoo	Advance path planning mobile robots for thermal & manufacturing system	Ongoing	2020	Dr. Parnika Srivastava

Patents

Name	Reg./Ref.No.	Date Of Award/Filing	Organization	Status
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Teaching

Programme Name	Subjects Taught	From	To	Credits
Lecturer	Mechanical Engineering Department, National Institute of Technology, Hamirpur.	29/06/2009	31/05/2011	02 Yrs
Assistant professor	Mechanical Engineering Department, National Institute of Technology, Hamirpur.	01/06/2011		10 Yrs

Administrative Responsibilities

Position Held	Organization	From	To	Remarks
Faculty In-charge Library	DoME	21/03/2016	19/03/2020	19
Faculty In-charge Student activities (Institute of Engineers (India)-Mechanical)	DoME	23/10/2012	21/02/2013	03
Faculty In-charge (Time Table (UP & PG)	DoME	18/10/2010	29/10/2014	2020,21
Co-ordinator, UG Project & PG Dissertation	DoME	01/10/2010	21/03/2016	02
Faculty In-charge Departmental tour	DoME	18/10/2010	17/08/2012	2013,29
Faculty In-charge Departmental Infrastructure & Maintenance	DoME	22/02/2013	30/10/2014	10
OIC Heat Engine Lab	DoME	21/03/2016	22/10/2020	2014,21
Faculty In-charge Heat Transfer Lab	DoME	18/10/2010	21/03/2016	03
Member of Departmental Under Graduate Committee (DUGC)	DoME	21/11/2016		2016,17
Faculty in-charges in Refrigeration and Air conditioning laboratory	DoME	18/10/2018	21/03/2016	08
Member of Departmental Under Graduate Committee (DUGC)	Department of Materials Science and Engineering	19/10/2015		2012,30
Member of Departmental Post Graduate Committee (DPGC)	DoME	25/09/2018		10
Faculty adviser Society of Mechanical Engineers (SOME)	DoME	01/10/2010		2014,22

Position Held	Organization	From	To	Remarks
Assistant Warden (Satpura Hostel)	NIT Hamirpur	27/06/2018		10
Member of Sub-nodal Officer of UBA Cell	NIT Hamirpur	03/06/2018		2020,21
Assistant Warden (Delegacy)	NIT Hamirpur	14/05/2019		03
Assistant Warden (Manimahesh Boys Hostel)	NIT Hamirpur	25/03/2019		2016,,21
OIC Society of Mechanical Engineering (SOME)	DoME	19/03/2020		03
FI Examination	NIT Hamirpur	18/11/2020		2016,,,,,,,,,

Expert Talks

Title	Place	Year	Description
Advancement in I.C. Engine and its Future Alternative Fuel	Government Engineering College, Bharatpur, Rajasthan	2019	Short Term Course
Advance Material & Micro Fabrication	PEC Chandigarh	2019	Faculty Development Programme
IC Engine Fuels & Combustion Technologies (ICEFCT-19)	NIT Jalandhar	2019	TEQIP III sponsored Short Term Course
The Future of Engineers: Opportunity and Challenges Today and Tomorrow	PEC Chandigarh	2020	TEQIP-III Sponsored Industry & Academia Conclave, 10-12 Dec, 2020
Energy Efficient Building Technology, EEBT-20221	NIT Hamirpur	2021	Five day e-workshop
Advances in Engine Combustion and Emission Diagnostics	NIT Andhra Pradesh	2020	Five day e-workshop
Future fuel search for I. C. Engine	NIT Hamirpur	2020	Faculty Development Programme

Professional Activities

Name of Activity	Role	Duration	Organization
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Courses Organized

Category	Type	Title	Venue	From	To	Designation
stc	Five days Short Term Course	Application Based Global Trends In Renewable Energy Sources	NIT Hamirpur	21/09/2009	25/09/2009	Coordinator
stc	Five days Short Term Course	Application based utilization in renewable energy sources	NIT Hamirpur	02/08/2010	06/08/2010	Coordinator
stc	Five days Short Term Course	Scope of self employment for technical students	NIT Hamirpur	03/10/2011	07/10/2011	Co- Coordinator
stc	Five days Short Term Course	Advanced equipment used in Renewable	NIT Hamirpur	31/01/2011	04/02/2011	Co- Coordinator
stc	Five days Short Term Course	New Technology & its advancement in automobile industry	NIT Hamirpur	19/12/2011	23/12/2011	Coordinator
stc	Five days Short Term Course	Energy for sustainable development - An approach in renewable energy	NIT Hamirpur	26/12/2011	30/12/2011	Coordinator
workshop	Five days e-workshop	Energy Efficient Building Technology, EEBT-20221	NIT Hamirpur	03/01/2021	07/01/2021	Convener

Date :

Place :

Signature