



Online WORKSHOP

On

ENHANCED THERMAL ENERGY TRANSPORT

10TH February, 2022 & 11th February, 2022

By

Department of Mechanical Engineering

Dr. B. C. Roy Engineering College, Durgapur
Campus: Jemua Road, Fuljhore, Durgapur Website: www.bcrec.ac.in

**In Collaboration with
Student Chapter of Institution of Engineers (India)**

About the Institute:

Dr. B. C. Roy Engineering College, Durgapur, named after Dr. Bidhan Chandra Roy, was established on 21st August, 2000 and is situated about 160 km away from Kolkata. Affiliated to AICTE under MAKAUT, BCREC offers UG & PG courses in Engineering, Technology & Management.

About the Department:

Mechanical Engineering Department, established in the year 2003, produces graduates who can meet the needs of rapidly changing industry which demands new skills and knowledge of modern technology. The Department offers B.Tech. in Mechanical Engineering and M.Tech. in Mechanical Engineering. Vision of the Department is to deliver world-class education and research in Mechanical Engineering, with particular regard to their application in industry, healthcare and commerce in a diverse society. The department has well qualified, experienced and dedicated faculty members with the specialization in niche areas like robotics, machine dynamics, computational fluid dynamics, design, turbo-machineries, composite materials, etc. It has a conducive ambience and specialized laboratories like CAD-CAM & Robotics Lab, Mechatronics Lab, etc along with conventional laboratories. The department is facilitated with high speed internet connection for acquiring knowledge from the web. Undergraduate students

get opportunity to involve themselves in high-end research work to build skills beyond curriculum.

Objective of the Program:

This course aims to provide a concise introduction to the fundamental concepts in Thermal Energy Transportation which is one of the most critical issues faced in various fields of science and technology. Inefficient thermal energy transportation creates numerous difficulties in operation and maintenance of equipment and processes. This naturally leads to requirement of enhancement in thermal energy transport. Extensive research has been carried out over the last few decades on various aspects, means and mechanisms of achieving enhanced thermal energy transport. This Workshop would provide an overview of the advancements achieved and future directions on enhanced thermal energy transport and aware the participants about research scope and prospects.

Time Table of Workshop:

Date	Topic	Speaker	Time
10thFebruary, 2022	Enhanced Thermal Energy Transportation using free aspiration	Dr Nirmalendu Biswas, Assistant Professor, Department of Power Engineering, Jadavpur University	6.30 pm to 8 pm
11thFebruary, 2022	Enhanced Thermal Energy Transport – Advancements and Future directions	Dr Aranyak Chakravarty, Assistant Professor, School of Nuclear Studies & Application, Jadavpur University	6.30 pm to 8 pm

Eligibility: Students/ Faculty/ Industry personnel

Requirements to get E-Certificate:

1. 100% attendance is required for the entire course.
2. Feedback form need to be submitted in each session (link will be provided in the chat box of Google meet during each session).

Convenor: Dr.Chandan Chatteraj, HOD & Professor, ME Department, BCREC

Coordinator: Prof. Partha Sarathi Bose, Asst. Professor, ME, BCREC (M: 7585069948)

Platform: Google Meet

Registration Link: <https://forms.gle/4Yicg6tKvphy2vj49>

(Registration link will be closed on 10th February, Thursday 11:00 AM)

Selection will be made on first-come-first-serve basis. If selected, a confirmation email will be sent to the registered email address. There is no registration charge.

Report for Online workshop

One online workshop on ‘Enhanced Thermal Energy Transport’ was held on 11th February & 12th February, 2022. Dr Nirmalendu Biswas, Assistant Professor and Dr Aranyak Chakravarty, Assistant Professor was two resource persons from Jadavpur University.

Dr Nirmalendu Biswas Assistant Professor, Department of Power Engineering, Jadavpur University was speaker on 10th February, 2022. His Topic was Enhanced Thermal Energy Transportation using free aspiration. Due to Network problem his session was shifted to 12th February. On 12th February, 4 nos of faculties and 92 no of students were attended the session.

Dr Aranyak Chakravarty, Assistant Professor, School of Nuclear Studies & Application, Jadavpur University was speaker on 11th February, 2022. His Topic was Enhanced Thermal Energy Transport – Advancements and Future directions. On 11th February, 4 nos of faculties and 92 nos of students were attended the session.

Program ended with Vote of Thanks to all.

Timestamp	Full Name of the Participant	Email ID	Mobile No.:	1. What percentage of the 2. I can use this session if 3. Would you like to learn 4. Duration of session:	5. Please rate the speaker 6. Please rate the speaker 7. Please rate the content 8. How accurate was the 9. How did the session go 10. Overall session evaluation
2/12/2022 19:56:30	SOUMIK RAJGURU	soumikrajguru858@gmail	9064341591	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:56:48	Suraj Pratap	surajpratap12a@gmail.co	9304466082	75% in 2 - 6 months Yes	Good Excellent Good Excellent Good Excellent
2/12/2022 19:56:51	Rahul Kesh	Rahulkesh7874@gmail.c	9382457895	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:56:55	ARNAB SENGUPTA	Babags9@gmail.com	7797381505	75% in 7 or more months Yes	Good Good Good Good Good Good
2/12/2022 19:56:56	APRATIM MONDAL	apratim.mondal413@gma	9593558249	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:56:57	Preetam Roy	preetamroy10@gmail.com	7908813971	75% in 7 or more months Yes	Good Good Excellent Excellent Good Good
2/12/2022 19:56:58	Arunava Chowdhury	arunava2400@gmail.com	9002013823	50% in 2 - 6 months Yes	Good Good Good Good Good Good
2/12/2022 19:57:21	Joydeep Roy	joydeep.roy11112222@g	9593821572	100% in 7 or more months No	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:22	Arnab Mondal	arnab1853@gmail.com	7063495800	75% in 7 or more months Yes	Excellent Good Good Good Good Good
2/12/2022 19:57:25	SUSANTA GUPTA	susantagupta2020@gmai	7430904889	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:26	BULLETT KUMAR	Kumarbullet643@gmail.c	9065420890	75% in 7 or more months Yes	Excellent Excellent Good Good Good Excellent
2/12/2022 19:57:28	VICKY KUMAR	vickykr735289@gmail.co	+917079843156	75% in 2 - 6 months Yes	Good Excellent Good Good Good Excellent
2/12/2022 19:57:29	Aditya om	adityaom229@gmail.com	6207086401	75% in 2 - 6 months Yes	Good Excellent Excellent Good Good Excellent
2/12/2022 19:57:33	Ayan Chatterjee	ayan.bcrp@gmail.com	+918927637238	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:35	Priyanka Mondal	mondalpp97@gmail.com	9064568147	50% immediately Yes	Good Good Excellent Good Good Good
2/12/2022 19:57:37	Ankit Kumar	mailankit2017@gmail.co	9430063018	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:38	ARUP KUMAR SHEE	arup3gh@gmail.com	9749715978	50% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:46	Prasoon Hazra	prasoonhazra1995@gma	7364830610	100% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:49	SHUBAS CHANDRA KAR	shubaskar461@gmail.co	8609165013	50% in 2 - 6 months Yes	Good Good Good Good Good Good
2/12/2022 19:57:50	Subham Dey	subhamdey039@gmail.c	8348579641	75% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:50	NITISH KUMAR DUBEY	nitishkumaradubey58@g	7488489308	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:51	SUBHA SINGHAMAHAPA	subhasingham07@gmai.	8250484982	50% immediately Yes	Excellent Good Excellent Good Excellent Good
2/12/2022 19:57:52	Sharmista Bhattacharya	bhattacharyasharmista8	8617059828	50% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:57:58	Indrajit Mondal	indrajitmondal127@gma	8001386145	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:58:01	Souvik Ghosh	123souvik1999@gmail.c	7407352170	100% in 7 or more months Yes	Excellent Excellent Excellent Good Good Excellent
2/12/2022 19:58:02	Shantanu debnath	shantanudebnath552@g	8926677056	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:58:06	SATYAM GOSWAMI	satyamgoswami2910@g	9113306905	75% in 2 - 6 months Yes	Good Excellent Excellent Good Excellent Excellent
2/12/2022 19:58:12	SAYAN MUKHERJEE	sayanmukherjee294@g	7908986800	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:58:16	SANJOY DAS	amlasulisanjoy@gmail.c	9382641750	75% in 2 - 6 months Yes	Excellent Good Good Good Good Good
2/12/2022 19:58:18	Nalinakshya Banerjee	nalinakshyabanerjee@g	7602255604	75% in 2 - 6 months Yes	Good Good Good Good Good Good
2/12/2022 19:58:34	Debashish Das	chottu7076556719@gma	7001840063	50% in 2 - 6 months Yes	Good Excellent Good Good Good Good
2/12/2022 19:58:39	RAHUL KUMAR	kumarrahulm827@gmail.	7766882894	100% immediately Yes	Excellent Excellent Good Excellent Good Excellent
2/12/2022 19:59:02	SOUJYOTI KARMAKAR	soujyotikarmakar1997@g	8670614901	75% in 7 or more months Yes	Good Good Good Good Good Good
2/12/2022 19:59:09	Subhadeep Roy	roysubhadeep13@gmail.	7679580036	75% immediately Yes	Good Excellent Good Good Good Good
2/12/2022 19:59:09	Bipul Shaw	bipulshaw08@gmail.com	+917001249459	75% immediately Yes	Good Excellent Excellent Good Good Excellent
2/12/2022 19:59:24	Pranab das	pranabdas837@gmail.co	9957044249	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:59:30	SAYAN AICH	sayanaich0301@gmail.c	9382399428	50% immediately Yes	Good Excellent Excellent Excellent Excellent Excellent
2/12/2022 19:59:39	BIKRAM AICH	bikram.aich.100@gmail.c	7001871627	75% in 2 - 6 months Yes	Excellent Excellent Good Good Excellent Good
2/12/2022 19:59:48	Deepak Kumar	deepakdgr500@gmail.co	7047702161	50% immediately Yes	Good Excellent Excellent Excellent Good Good
2/12/2022 19:59:53	Shubhadeep Dhara	dharashubhadeep194@c	8159838929	100% in 7 or more months Yes	Good Excellent Excellent Good Excellent Good
2/12/2022 20:00:26	PIYUSH JOSHI	darknight9831@gmail.co	6291855813	25% in 2 - 6 months Yes	Poor Good Average Average Good Average
2/12/2022 20:00:28	SOURAJIT VARIK	sourajit.varik.dgp@gmai.	7063168374	50% in 7 or more months Yes	Good Good Good Good Good Good
2/12/2022 20:00:50	RAJAT SHAW	rajatshaw160@gmail.com	9614752263	50% in 2 - 6 months Yes	Good Good Excellent Good Good Good
2/12/2022 20:00:55	NEERAJ KUMAR	neerajkumar7050407473	7050407473	100% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:00:59	Ankit Basu	ankitbasu2222@gmail.co	8250692879	75% immediately Yes	Good Good Excellent Good Good Good
2/12/2022 20:01:26	Ramyadeep barman	Barmanrku06@gmail.co	8250287043	75% in 7 or more months Yes	Excellent Excellent Excellent Excellent Good Excellent
2/12/2022 20:01:28	Amit Kumar	amitr.124680@gmail.co	7070672702	25% in 2 - 6 months Yes	Poor Good Average Average Good Good
2/12/2022 20:01:31	AYAN BANERJEE	ayan08744@gmail.com	8617561974	100% immediately Yes	Good Excellent Excellent Good Good Good
2/12/2022 20:01:35	DEEPAK KUMAR	rkh333932@gmail.com	6394613086	75% in 2 - 6 months Yes	Good Good Excellent Good Good Good
2/12/2022 20:01:41	RAJKUMAR BHARTI	rajkumarbharti653@gmai	7209371124	75% immediately Yes	Good Good Good Good Good Good
2/12/2022 20:02:03	Nilanjan Mukherjee	nilanjanmukherjee1998@	9883720474	100% immediately Yes	Excellent Good Good Excellent Excellent Excellent
2/12/2022 20:02:05	Vicky Kumar Mandal	Vickymandal432@gmail.c	7857987132	50% in 2 - 6 months Yes	Good Good Average Good Good Average
2/12/2022 20:02:06	AVISEK MONDAL	avisekmondal10@gmail.c	6296143063	75% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:02:13	RAJNISH KUMAR RANJAN	krajnish2016@gmail.com	947264379	100% in 2 - 6 months Yes	Good Excellent Good Good Good Excellent
2/12/2022 20:02:17	Rahul Chakraborty	rahulgunnath2288@gmai	7294880208	75% in 2 - 6 months Yes	Excellent Excellent Good Good Good Good
2/12/2022 20:02:33	SUBHADIP DEY	subhadipdeyaicm@gmai	7585079978	50% immediately Yes	Excellent Excellent Excellent Excellent Good Good
2/12/2022 20:02:34	Deepjyoti santra	deepsantra575@gmail.co	8637837677	100% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:02:39	SUMAN DUTTA	sd14062000@gmail.com	6297436471	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:02:50	Surajit Bouri	surajitbouri999@gmail.co	6294419326	75% in 2 - 6 months Yes	Excellent Excellent Good Excellent Excellent Good
2/12/2022 20:03:00	Srikanta Bhattacharjee	sudiptqb@gmail.com	7047507436	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:03:39	Proteek Ghosh	ghosh.proteek@gmail.co	7980958348	75% in 7 or more months Yes	Good Good Excellent Excellent Good Good
2/12/2022 20:04:14	SHAD AHMAD	shadahmad881@gmail.co	9304471463	75% in 2 - 6 months Yes	Good Good Average Good Good Good
2/12/2022 20:05:00	Deb Kiran Das	rockdebkiran@gmail.com	7319367798	50% in 7 or more months Yes	Good Good Good Good Good Good
2/12/2022 20:05:06	SOHOM DAS	deep2001babu@email.co	8250247029	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:05:16	Sanan raj	Sananraj999@gmail.com	7563868844	75% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent

Timestamp	Full Name of the Participant	Email ID	Mobile No.:	1. What percentage of the 2. I can use this session if 3. Would you like to learn 4. Duration of session:	5. Please rate the speaker 6. Please rate the speaker 7. Please rate the content 8. How accurate was the 9. How did the session go 10. Overall session evaluation
2/12/2022 20:05:32	Sandip Karmakar	sandipkarmakar2002@gmail.com	8016344750	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:05:55	MD ZISHAN AHMAD	ahmadmohammadzishan@gmail.com	8877083003	50% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:06:10	ANIRBAN GARAI	anirbangarai06@gmail.com	9002254211	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:06:47	Priyanka Layek	priyankalayek1107@gmail.com	9002572627	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:07:13	Rahul Mandal	rahulmandal.15062002@gmail.com	7667237015	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:07:15	VIBHASH KUMAR VERMA	vibhashkumarverma@gmail.com	9800807183	100% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:07:22	Gorav Kumar Mandal	kumargaurav7282@gmail.com	8538032508	50% in 7 or more months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:07:41	Rahul Kumar	Rahul444raffaar@gmail.com	9634922645	75% in 2 - 6 months Yes	Good Excellent Excellent Excellent Good Good Good
2/12/2022 20:08:04	Subhajit Chakraborty	subhajitc98dgn@gmail.com	+917908368572	75% in 7 or more months Yes	Good Good Good Good Good Average Good
2/12/2022 20:08:05	Animesh Mondal	mondal.animesh3721@gmail.com	7001916739	100% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:08:47	ARNAB MANDAL	mandalar2409@gmail.com	8942803377	75% in 2 - 6 months Yes	Good Good Good Good Good Good Good
2/12/2022 20:08:59	APARESH SINGHA	apareshsingha20@gmail.com	8509309289	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:09:11	Ardhendu Saha	ardhendu.saha9.as@gmail.com	7076632285	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Good Good Excellent
2/12/2022 20:09:26	Sourav Das	sourav.bwn1@gmail.com	9064409331	50% in 7 or more months Yes	Good Excellent Excellent Good Excellent Good Good
2/12/2022 20:09:58	Rahul Sarkar	rahulsarkar728@gmail.com	9883317884	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:10:31	Debdyuti Bhattacharjee	debdyuti09687@gmail.com	+918597432081	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:10:33	SOURODEEP NANDI	12000720012	9832937285	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:10:33	KUNAL SHYAM	kunalshyam07@gmail.com	9932997184	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:11:20	Ayush Kumar	ayushkumarrajput53@gmail.com	9079523369	75% in 2 - 6 months Yes	Excellent Good Excellent Good Good Good Good
2/12/2022 20:11:50	Agnibha Bandopadhyay	agnibhabandopadhyay@gmail.com	9733455222	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:12:07	Bhaskar das	dasb94809@gmail.com	9064874710	100% immediately Yes	Good Excellent Excellent Excellent Good Good Excellent
2/12/2022 20:12:25	Sushil Kumar	singhmukul.3q@gmail.com	7479646930	75% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:12:33	Ronit Roy	ronitroy010520@gmail.com	9382912979	75% in 2 - 6 months Yes	Excellent Excellent Good Good Good Good Good
2/12/2022 20:12:46	Asif Ali	asif.ali101196@gmail.com	7278228777	100% immediately Yes	Good Excellent Good Good Excellent Excellent Excellent
2/12/2022 20:12:49	Arnab Mahato	arnabmahato262000@gmail.com	7679903399	50% in 2 - 6 months Yes	Excellent Excellent Good Excellent Excellent Good Good
2/12/2022 20:12:59	SIDDHARTHA BHOWMICK	siddhartha.bhowmick1@gmail.com	9647438851	75% in 7 or more months Yes	Excellent Excellent Excellent Good Good Good Good
2/12/2022 20:13:34	MRINAL BAGDI	mrinalbagdi321@gmail.com	8515912769	50% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:16:07	Anupam Koner	anupamKoner555@gmail.com	8240450636	100% immediately Yes	Excellent Excellent Excellent Excellent Excellent Excellent Excellent
2/12/2022 20:17:06	ARIJIT BANERJEE	arijit.banerjee@bcrec.ac.in	9339204602	50% in 2 - 6 months Yes	Excellent Excellent Excellent Excellent Excellent Excellent Excellent