



# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION



Organized by  
Department of Mechanical Engineering,  
National Institute of Technology Karnataka, Surathkal-575025

## PROGRAMME DAY 01: 15<sup>th</sup> Dec, 2017

Time	Program	Venue
08.00 AM - 09.00 AM	REGISTRATION	REGISTRATION DESK
09.00 AM - 11.00 AM	INAUGURAL CEREMONY	SEMINAR HALL
11.00 AM - 11.30AM	HIGH TEA	SPECIAL STAGE
11.30 AM - 12.30 PM	PLENARY LECTURE 1	SEMINAR HALL
	DR. SSV RAMAKUMAR DIRECTOR (RESEARCH & DEVELOPMENT), IOCL, INDIA <u>Session Chair</u> Dr. V Ramanujachari	
12.30 PM - 1.30 PM	LUNCH BREAK	DINING HALL
1.30 PM - 2.30 PM	PLENARY LECTURE 2	SEMINAR HALL
	DR. R R SONDE EXECUTIVE VICE PRESIDENT, RESEARCH, TECHNOLOGY & INNOVATION, THERMAX <u>Session Chair</u> Dr. L M Naik	
2.30 PM - 2.45 PM	TEA BREAK	CAFETERIA
2.45 PM - 3.45 PM	PLENARY LECTURE 3	SEMINAR HALL
	DR. rer. nat. CHRISTIAN TEICH VICE PRESIDENT – R&D BOSCH LIMITED “THE FUTURE OF INTERNAL COMBUSTION ENGINE IN INDIA” <u>Session Chair</u> Dr. Ravikrishna	
4.00 PM - 5.00 PM	CIIS-GENERAL BODY MEETING	SEMINAR HALL

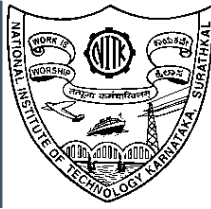


**07:00-09:30 Dinner/Cultural Programme [NITK Beach]**



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## Conference Session 01 : Alternative Fuels

Date: 16<sup>th</sup> Dec, 2017

Chair: Prof. MKG Babu

Co-chair: Dr. Ajay Kumar Yadav

Time: 09:00 AM -10:30 AM

Venue: Room No. CR1

Paper ID	Paper Title	Authors	Time
25NCICEC001	AN EXPERIMENTAL STUDY ON COMBUSTION DYNAMICS OF A PRODUCER GAS FUELLED IC ENGINE	M. SREEDHAR BABU VISHAL GARG SHIBU CLEMENT NKS RAJAN	09: 00 AM To 09: 15 AM
25NCICEC012	PRODUCTION, CHARACTERIZATION AND UTILIZATION OF BIODIESEL PRODUCED FROM SALVINIA MOLESTA	M.MUBARAK A. SHAIJA T.V SUCHITHRA	09: 15 AM To 09: 30 AM
25NCICEC019	EXPERIMENTAL INVESTIGATION ON BIOMASS GASIFICATION OF GROUNDNUT SHELLS IN FLUIDISED BED GASIFIER	JOEL GEORGE PRADYUMNA MAHARANA P. ARUN C. MURALEEDHARAN	09: 30 AM To 09: 45 AM
25NCICEC075	AN EXPERIMENTAL INVESTIGATION ON WASTE PLASTIC FUEL TOWARDS THE SOLUTION OF CRUDE OIL CRISIS	SHIVAM PATHAK LOKESH PRATAP SINGH NITIN KUKREJA	09: 45 AM To 10: 00 AM
25NCICEC079	EXPERIMENTAL INVESTIGATION OF PYROLYTIC OIL IN I.C ENGINES BY USING GULMOHAR PYROLYTIC OIL	SENTHIL.R SUDAGAR.S BALAMURUGAN.R MANIKANDAN.A THAMIZVEL	10: 00 AM To 10: 15 AM
25NCICEC141	PERFORMANCE, COMBUSTION AND EMISSION CHARACTERISTICS OF B20 FISH BIODIESEL BLENDED WITH WASTE PLASTIC OIL ON A DIESEL ENGINE	D. K. RAMESHA PREMAKUMARA. G BHARATH L	10: 15 AM To 10: 30 AM



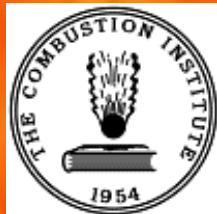
10:30-10:45 Tea Break (Cafeteria)

**PLENARY LECTURE 4 : Prof. S. A. CHANNIWALA**

**TIME: 10:45 to 11:30**

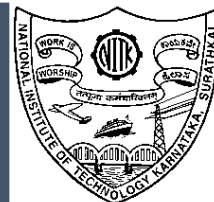
**Session Chair: Prof. S R Chakravarthy**





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**Conference Session 02 : Gas turbine, Engine & Furnace Combustion**

**Date: 16<sup>th</sup> Dec, 2017**

**Chair: Prof. Suresh Kumar**

**Co-chair: Dr. Arun**

**Time: 09:00 AM -10:30 AM**

**Venue: Room no.CR2**

<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>	<b>Time</b>
25NCICEC071	SPECTROSCOPIC ANALYSIS OF LEAN BLOWOUT OF PARTIALLY PREMIXED MODEL GAS TURBINE COMBUSTOR	SOMNATH DE A BISWAS A. MUKHOPADHYAY S. SEN	09: 00 AM To 09: 15 AM
25NCICEC096	COMPARISON OF PERFORMANCE PARAMETERS FOR DIFFERENT BORE CONFIGURATIONS	VISHESH GARG PRATHMESH TARE HARISH RAJAN YASH GANDHI	09: 15 AM To 09: 30 AM
25NCICEC098	PROSPECTS OF NOZZLE-LESS BOOSTERS FOR EFFICIENT SPACE PROPULSION	S. CHARULATHA AISHWARYA MANOJ KURLEKAR AATHIRA SUBRAMANIAN VINAYAK MALHOTRA	09: 30 AM To 09: 45 AM
25NCICEC127	FUEL CHARACTERIZATION AND EVAPORATION RATE ANALYSIS FOR GRAPHENE BASED NANO-ADDITIVE	SAURABH KUMAR GUPTA ANAND KRISHNASAMY	09: 45 AM To 10: 00 AM
25NCICEC168	HEAT LOAD ESTIMATION OF IMPINGING FLAME JETS	PRAMOD KUNTIKANA S. V. PRABHU	10: 00 AM To 10: 15 AM
25NCICEC196	EXPERIMENTAL STUDY OF LOW COMBUSTION EMISSION AND PERFORMANCE BEHAVIOR WITH DIESEL & GASOLINE DUAL FUEL	JYOTIRMOY BARMAN D. DESHMUKH	10: 15 AM To 10: 30 AM

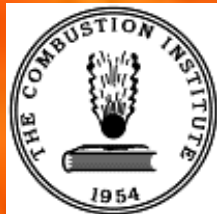


**10:30-10:45 Tea Break (Cafeteria)**

**PLENARY LECTURE 4 : Prof. S. A. CHANNIWALA**

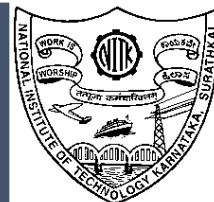
**TIME: 10:45 to 11:30**

**Session Chair: Prof. S R Chakravarthy**



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## Conference Session 03: Fuel additives

Date: 16<sup>th</sup> Dec, 2017

Chair: Dr. Sudhir Joshi

Co-chair: Dr. Veershetty G

Time: 09:00 AM -10:30 AM

Venue: Room no. CR3

Paper ID	Paper Title	Authors	Time
25NCICEC005	AN EXPERIMENTAL STUDY OF DI DIESEL ENGINE USING OF BIODIESEL AND DIESEL ADDITIVE	JIBITESH KUMAR PANDA DR. G.R.K. SASTRY DR. RAM NARESH RAI	09: 00 AM To 09: 15 AM
25NCICEC061	INVESTIGATION ON THE EFFECTS OF ESTERS - DIESEL BLENDS DOPED WITH COPPER OXIDE NANO ADDITIVES IN COMPRESSION IGNITION ENGINE	C.VIJAYAKUMA A MURUGESAN A. KUMARAVEL N. PANNEERSELVAM S. T. KUMARAVEL	09: 15 AM To 09: 30 AM
25NCICEC066	COMPARATIVE BEHAVIOUR OF VARIOUS OXYGENATED ADDITIVE VERSUS NANO ADDITIVES ON DI DIESEL ENGINE FUELLED WITH GRACINIA GUMMI-GUTTA BIODIESEL	LINGESAN SUBRAMANI ANNAMALAI K PARTHASARATHY M PAULJAMESTHADHANI J DHINESH B KRISHNA MOORTHY R ARIVARASAN	09: 30 AM To 09: 45 AM
25NCICEC078	ENHANCEMENT OF ENGINE PERFORMANCE BY ADDITION OF NANO-PARTICLES IN LUBRICATING OIL	NILESH S DESAI NAGARAJ A M T B SINDE SOHAN A N	09: 45 AM To 10: 00 AM
25NCICEC165	AN EXPERIMENTAL INVESTIGATION TO STUDY THE EFFECT OF CERIUM OXIDE NANO PARTICLE ADDITIVES IN KARANJA BIODIESEL BLENDS	G. V. L. PRASAD A.V.S.S.K.S. GUPTA	10: 00 AM To 10: 15 AM
25NCICEC183	EFFECTS OF NOX REDUCTION IN ANNONA BIODIESEL BY USING ANTIOXIDANT ADDITIVE	SENTHIL. R SILAMBARASAN RAJENDRAN MOHAN GOVINDASAMY RATCHARAJA.D	10: 15 AM To 10: 30 AM



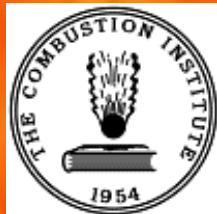
10:30-10:45 Tea Break (Cafeteria)

**PLENARY LECTURE 4 : Prof. S. A. CHANNIWALA**

**TIME: 10:45 to 11:30**

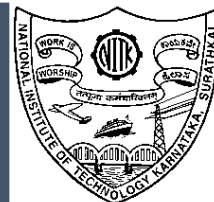
**Session Chair: Prof. S R Chakravarthy**





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## Conference Session 04 : Alternative Fuels (Biofuels)

Date: 16<sup>th</sup> Dec, 2017

Chair: Dr. Devender Deshmukh

Co-chair: Dr. Ramesha D K

Time: 11:30 AM -01:00 PM

Venue: Room No. CR1

Paper ID	Paper Title	Authors	Time
25NCICEC030	SHORT TERM ENDURANCE RESULTS ON A DIESEL ENGINE FUELED WITH UPGRADED BIO OIL BIODIESEL EMULSION	R. PRAKASH S MURUGAN	11: 30 AM To 11: 45 AM
25NCICEC040	IMPROVING THE PERFORMANCE AND EMISSIONS OF A COMMON RAIL DIESEL ENGINE AT LOW INJECTION PRESSURES BY PROPER INJECTION SCHEDULING AT FULL LOAD	JAYKUMAR YADAV A. RAMESH	11: 45 AM To 12: 00 PM
25NCICEC106	PERFORMANCE EVALUATION OF COMPRESSION IGNITION ENGINE USING BLENDS OF OXYGEN AND BIODIESEL	R. A. KALE D. D. BHOGE S. S. KALE1	12: 00 PM To 12: 15 PM
25NCICEC152	EFFECT OF INJECTION PRESSURE ON PERFORMANCE, COMBUSTION AND EMISSION CHARACTERISTICS OF CI ENGINE FUELED WITH POULTRY LITTER BIODIESEL BLEND	RAMESH D K SANTOSH KHOT ASHOK KUMAR K BALAKRISHNA KHOT	12: 15 PM To 12: 30 PM
25NCICEC195	EFFECT OF TYRE PYROLYSIS OIL ON THE PERFORMANCE AND EMISSIONS OF A BIODIESEL FUELLED COMPRESSION IGNITION ENGINE	DR. KAPILAN NATESH L. JULLYA NAIK	12: 30 PM To 12: 45 PM
25NCICEC197	MACROSCOPIC SPRAY CHARACTERISTICS OF BIODIESEL FUELS	VASUDEV CHAUDHARY D. DESHMUKH M. SONI	12: 45 PM To 01: 00 PM



01:00-01:45 Lunch Break (Cafeteria)

**PLENARY LECTURE 5 : Prof. L. M. Das**

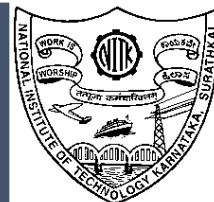
**TIME: 01:45 to 02:30**

**Session Chair: Prof. USP Shet**



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## Conference Session 05: Combustion Analysis ,Flame stabilization

Date: 16<sup>th</sup> Dec, 2017

Chair: Prof. U S P Shet

Co-chair: Dr. Sathyabhama

Time: 11:30 AM -01:00 PM

Venue: Room no. CR2

Paper ID	Paper Title	Authors	Time
25NCICEC113	DROP SIZE DISTRIBUTION MEASUREMENTS IN FURNACE OIL SPRAY COMBUSTION	SAURABH MARKANDEYA R V RAVIKRISHNA	11: 30 AM To 11: 45 AM
25NCICEC119	AN EXPERIMENTAL STUDY ON EXTINCTION AND STABILITY OF COUNTERFLOW NON-PREMIXED FLAMES	SOMNATH DE S. SARKAR J. MUNSHI A.BHATTACHARYA A. MUKHOPADHYAY S. SEN	11: 45 AM To 12: 00 PM
25NCICEC129	SYNGAS COMBUSTION IN A NON-PREMIXED REVERSE-FLOW CONFIGURATION	SANTANU PRAMANIK R. V. RAVIKRISHNA	12: 00 PM To 12: 15 PM
25NCICEC137	EXPERIMENTAL STUDIES OF SWIRL STABILIZED HYDROGEN-AIR JET FLAME	CHAKRADHAR DARA D.P. MISHRA	12: 15 PM To 12: 30 PM
25NCICEC142	EXPERIMENTAL STUDIES ON LEAN CATALYTIC COMBUSTION OF METHANE	ATANU DOLAI SANTANU PRAMANIK R V RAVIKRISHNA	12: 30 PM To 12: 45 PM
25NCICEC143	EFFECT OF SWIRL ANGLE ON THE DYNAMICS OF A SWIRL STABILIZED CONFINED JET DIFFUSION FLAME	ASSIZ M.P D. P. MISHRA	12: 45 PM To 01: 00 PM



01:00-01:45 Lunch Break (Cafeteria)

**PLENARY LECTURE 5 : Prof. L. M. Das**

**TIME: 01:45 to 02:30**

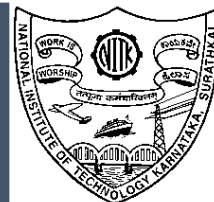
**Session Chair: Prof. USP Shet**





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## Conference Session 06 : CFD Analysis and Numerical Studies

Date: 16<sup>th</sup> Dec, 2017

Chair: Dr. Mayank Mittal

Co-chair: Dr. Ranjit M

Time: 11:30 AM -01:00 PM

Venue: Room no.CR3

Paper ID	Paper Title	Authors	Time
25NCICEC018	CFD ANALYSIS ON A GDI ENGINE – FUEL INJECTION PARAMETRIC STUDY	KALYANAKUMAR PAULRAJ	11: 30 AM To 11: 45 AM
25NCICEC020	EFFECT OF FUEL SPRAY PARAMETERS ON PERFORMANCE AND EMISSIONS OF A CIDI ENGINE - A NUMERICAL STUDY	ANURAG BANSAL A R BABU AMBA PRASAD RAO G	11: 45 AM To 12: 00 PM
25NCICEC032	EFFECT OF DIRECTION OF ROTATION ON GAS EXCHANGE AND HEAT TRANSFER OF A DOUBLE CRANK IC ENGINE	N.S.PRASAD A.RAMESH	12: 00 PM To 12: 15 PM
25NCICEC068	NUMERICAL ANALYSIS ON THE EFFECT OF INJECTION PRESSURE AND INJECTION ANGLE OF A SONIC INJECTION IN A SUPERSONIC CROSS FLOW	G ADITYA H ANAND S SOMA SUNDARAM	12: 15 PM To 12: 30 PM
25NCICEC118	ACOUSTIC ANALYSIS OF AFTERBURNER WITH LINER FOR DIFFERENT AIR FUEL RATIOS	A. GURRALA SRINIVASARAO B. A SHAIJA	12: 30 PM To 12: 45 PM
25NCICEC121	LIQUID JET IN SWIRLING CROSS FLOWS-A NUMERICAL INVESTIGATION	SURYA PRAKASH SUHAS JAIN RAGHUNANDAN B. N. RAVIKRISHNA R. V. GAURAV TOMAR	12: 45 PM To 01: 00 PM

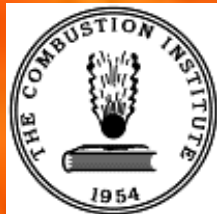


01:00-01:45 Lunch Break (Cafeteria)

**PLENARY LECTURE 5 : Prof. L. M. Das**

**TIME: 01:45 to 02:30**

**Session Chair: Prof. USP Shet**



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**Conference Session 07 : Performance, Emissions and Pollution control**

**Date: 16<sup>th</sup> Dec, 2017**

**Chair: Dr. S. Jayaraj**

**Co-chair: Dr. Banapurmath**

**Time: 02:30 PM -04:00 PM**

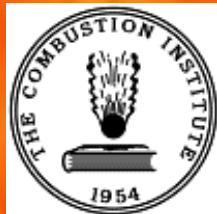
**Venue: Room no. CR1**

<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>	<b>Time</b>
25NCICEC007	A CHARACTERISTIC EVALUATION OF DIESEL ENGINE FUELLED WITH CALOPHYLLUM INOPHYLLUM (PUNNAI) METHYL ESTER WITH THE AID OF ZINC AND NICKEL COATED CATALYTIC CONVERTERS	D. SUBRAMANIAM A. MURUGESAN A. AVINASH N. PANNEERSELVAM C. VIJAYAKUMAR	02: 30 PM To 02: 45 PM
25NCICEC011	NOX REDUCTION METHODS IN DIESEL ENGINE USING WASTE VEGETABLE OIL BIODIESEL	S. RAJESH KANA A. SHAIJA H. R. HARIKRISHNAN M. HRISHIKESH	02: 45 PM To 03: 00 PM
25NCICEC026	EFFECTS OF PISTON BOWL GEOMETRY AND INJECTION PRESSURE ON PERFORMANCE AND EMISSION OF A DIESEL ENGINE FUELED WITH CALOPHYLLUM INOPHYLLUM METHYL ESTER	L. SARAVANA KUMAR B. R. RAMESH BAPU B. DURGA PRASAD A. RAJENDRA PRASAD	03: 00 PM To 03: 15 PM
25NCICEC052	PERFORMANCE IMPROVEMENT AND EMISSION REDUCTION OF SINGLE CYLINDER NATURALLY ASPIRATED DIESEL ENGINE TO MEET BS IV EMISSION STANDARDS	M. NAVGIRE SUBHASH LAHANE S. KALEEMUDDIN SANDIP CHAUDHARI VENKAT CHINTALA D. B. LATA	03: 15 PM To 03: 30 PM
25NCICEC069	PERFORMANCE AND EMISSION ANALYSIS OF CI ENGINE WITH BUTANOL-DIESEL BLENDS	SIVA PRASAD KATTELA ADITYA B PRABHAKARA RAO GANJI V. R. K RAJU S. SRINIVASA RAO	03: 30 PM To 03: 45 PM
25NCICEC203	EXPERIMENTAL INVESTIGATION OF TYRE PYROLYSIS OIL ON DIESEL ENGINE USING CALCIUM OXIDE AS CATALYST	AKHIL MOHAN, PRAJEETH KUMAR K P AND VASUDEVA MADAV	03: 45 PM To 04: 00 PM



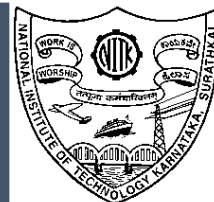
**04:00-04:15 Tea Break (Cafeteria)**





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## Conference Session 08 : Alternative fuels (Biofuels)

Date: 16<sup>th</sup> Dec, 2017

Chair: Dr. L M Das

Co-chair: Dr. Vasudeva M

Time: 02:30 PM -04:00 PM

Venue: Room No. CR2

Paper ID	Paper Title	Authors	Time
25NCICEC024	A REVIEW ON NANOPARTICLES AS FUEL ADDITIVES IN BIODIESEL	K.RAJESH DR. GANESH D.B. THRIVENI T.G	02: 30 PM To 02: 45 PM
25NCICEC156	EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND EMISSION CHARACTERISTICS OF SWEET LIME PEEL PYROLYSIS OIL AS FUEL IN DIESEL ENGINE	GNANAMOORTHY V MURUGAN M DEVARADJANE G	02: 45 PM To 03: 00 PM
25NCICEC157	EXPERIMENTAL ANALYSIS ON PERFORMANCE PARAMETERS AND EXHAUST EMISSIONS OF THE SEMI ADIABATIC DIESEL ENGINE BY USING LINSEED BIODIESEL AS AN ALTERNATIVE FUEL	VAMSI KRISHNA K SASTRY GRK MURALI KRISHNA MVS	03: 00 PM To 03: 15 PM
25NCICEC160	EXPERIMENTAL INVESTIGATION ON THE COMBUSTION, PERFORMANCE AND EMISSION CHARACTERISTICS OF VARIABLE SPEED C.I. ENGINE USING FISH OIL BIODIESEL AS FUEL	RAMESHA.D.K. DEEPAK KUMAR. LAXMINARAYANA.N	03: 15 PM To 03: 30 PM
25NCICEC182	PERFORMANCE AND EMISSION CHARACTERISTICS OF DIESEL ENGINE BY USING CASHEW NUT OIL AS BIODIESEL	SENTHIL.R SUDAGAR.S BALAMURUGAN MANIKANDAN.R MANIKANDAN.E	03: 30 PM To 03: 45 PM
25NCICEC108	QUALITY IMPROVEMENT OF MICROALGAE BIODIESEL BLENDS USING DTBP AS AN IGNITION ENHANCER IN DICI ENGINE	A. GURUSAMY V. GNANAMOORTHY P.PURUSOTHAMAN1	03: 45 PM To 04: 00 PM

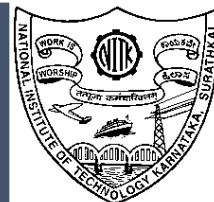


**04:00-04:15 Tea Break (Cafeteria)**



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## Conference Session 09 : CFD Analysis and Numerical Studies

Date: 16<sup>th</sup> Dec, 2017

Chair: Dr. Ramesh D K

Co-chair: Dr. Arumuga Perumal D

Time: 02:30 PM -04:00 PM

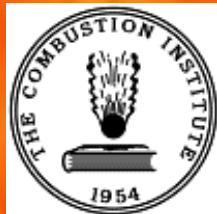
Venue: Room no.CR3

Paper ID	Paper Title	Authors	Time
25NCICEC158	NUMERICAL STUDY OF DEFLAGRATION TO DETONATION TRANSITION IN PULSE DETONATION ENGINE WITH OCTANE-AIR MIXTURE	S. BASSI S. CHATURVEDI	02: 30 PM To 02: 45 PM
25NCICEC173	HOT SURFACE IGNITION OF HYDROGEN AIR MIXTURES FOR VARIOUS HEATING RATES	SUDHI S. JITHIN E.V. PARTHASARTHY P. RATNA KISHORE V	02: 45 PM To 03: 00 PM
25NCICEC178	COMPUTATIONAL STUDY OF OBLIQUE SHOCK INDUCED DETONATION WAVE FORMATION IN HYPERSONIC WEDGE FLOWS	L. SUSHMA DR.T. TIRUPATI DR. M. INDIRA RANI DR. M. MADHAVI	03: 00 PM To 03: 15 PM
25NCICEC180	A COMPUTATIONAL STUDY OF IN-CYLINDER FLOW, AND THE INFLUENCE OF INJECTION TIMING ON MIXTURE PREPARATION IN A SMALL-BORE GDI ENGINE	JUBIN V JOSE MAYANK MITTAL A RAMESH	03: 15 PM To 03: 30 PM
25NCICEC186	AFV ENGINE EXHAUST MANIFOLD CFD ANALYSIS AND EXPERIMENTAL VALIDATION	S. BALAJI K.SRINIVASAN R.NANDAGOPAL P. VISWANATHAN	03: 30 PM To 03: 45 PM
25NCICEC188	UNSTEADY DISPERSION OF EVAPORATING FUEL SPRAY AT HIGH AMBIENT GAS TEMPERATURE	ANAND TEERTH SRIKRISHNA SAHU T. SUNDARARAJAN	03: 45 PM To 04: 00 PM



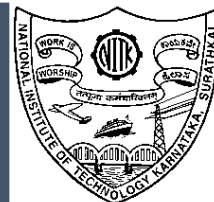
04:00-04:15 Tea Break (Cafeteria)





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**Conference Session 10 : Performance, Emissions and Pollution control**

**Date: 16<sup>th</sup> Dec, 2017**

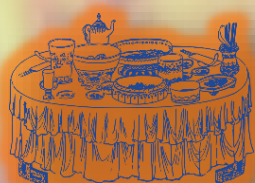
**Chair: Dr. Rajendran R**

**Co-chair: Dr. Arun**

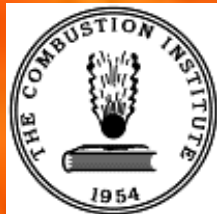
**Time: 04:15 PM – 05:45 PM**

**Venue: Room no. CR1**

<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>	<b>Time</b>
25NCICEC070	STUDY OF RAW AND PROCESSED COAL FOR REDUCING COOKSTOVE EMISSIONS	DARPAN DAS SURYENDU DUTTA UPENDRA BHANDARKAR VIRENDRA SETHI1	04: 15 PM To 04: 30 PM
25NCICEC101	STUDY OF PERFORMANCE, COMBUSTION AND EMISSION CHARACTERISTICS ON DIESEL ENGINE USING DIFFERENT BIODIESEL BY VARYING INJECTION PARAMETERS	SUCHITH KUMAR M T DHANANJAYA D.A	04: 30 PM To 04: 45 PM
25NCICEC125	VGT SELECTION FOR IMPROVED LOW END TORQUE AND REDUCED SMOKE EMISSION	M. ANBARASU VAGESH SHANGAR.R HARIHARAN R SACHIN BAHL	04: 45 PM To 05: 00 PM
25NCICEC162	REAL-TIME DRIVING CYCLE MEASUREMENTS OF ULTRAFINE PARTICLE EMISSIONS FROM CNG, LPG, GASOLINE AND DIESEL PASSENGER CARS	SUNIL KUMAR PATHAK VINEET SOOD YOGRAJ SINGH S. A. CHANNIWALA	05: 00 PM To 05: 15 PM
25NCICEC164	REAL WORLD DRIVING PARAMETERS AND THEIR CORRELATION WITH NOX EMISSIONS IN DIESEL PASSENGER CARS	SUNIL KUMAR PATHAK VINEET SOOD YOGRAJ SINGH S. A. CHANNIWALA	05: 15 PM To 05: 30 PM

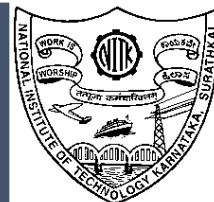


**07:00-09:30 Dinner/Musical Night (Seminar Hall)**



# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
Department of Mechanical Engineering,  
National Institute of Technology Karnataka, Surathkal-575025



**Conference Session 11 : Combustion Dynamics and Instabilities, Premixed combustion,  
Chemical Kinetics  
Date: 16<sup>th</sup> Dec, 2017**

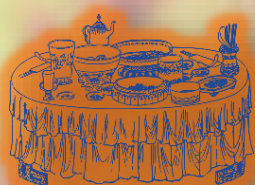
**Chair: Prof. P Mohanan**

**Co-chair: Dr. Ravikiran Kadoli**

**Time: 04:15 PM – 05:45 PM**

**Venue: Room no. CR2**

<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>	<b>Time</b>
25NCICEC084	IGNITION OF MOVING HOT PARTICLES OF VARIOUS SHAPES WITH HYDROGEN-AIR MIXTURE	NUPUR GUPTA RATNA KISHORE V SUDARSHAN KUMAR	04: 15 PM To 04: 30 PM
25NCICEC146	CFD ANALYSIS OF MIXING AND COMBUSTION IN SCRAMJET COMBUSTOR FOR DIFFERENT STRUT FUEL INJECTORS	SAURABH JINDAL SUDARSHAN KUMAR	04: 30 PM To 04: 45 PM
25NCICEC151	VISUALIZATION OF UNSTEADY COMBUSTING FLOW IN A VALVED PULSEJET ENGINE	C.RAJASHEKAR H.S. RAGHUKUMAR M JANAKI RAMI REDDY J J ISAAC	04: 45 PM To 05: 00 PM
25NCICEC181	EXPERIMENTAL INVESTIGATION OF FLAME TRANSFER FUNCTION FOR PARTIALLY PREMIXED FLAME OVER A WIDE RANGE OF PREMIXEDNESS	SUBHADIP PAL ARITRA CHAKRABORTY SATYA R. CHAKRAVARTHY	05: 00 PM To 05: 15 PM
25NCICEC189	COMBUSTION ANALYSIS OF N-BUTANOL/FUELLED IN A CRDI ENGINE AND EGR TECHNIQUE	NUTHAN PRASAD B.S PRAKASH KUMAR DEEP KUMAR GN	05: 15 PM To 05: 30 PM
25NCICEC109	TRANSIENT TEMPERATURE BEHAVIOR OF A CATALYTIC CONVERTER FOR A COMMON-RAIL DIRECT-INJECTION DIESEL ENGINE	PRIYABRATA MOHAPATRA MAYANK MITTAL	05: 30 PM To 05: 45 PM



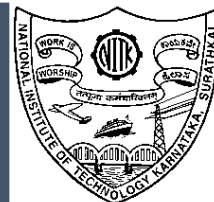
**07:00-09:30 Dinner/Musical Night (Seminar Hall)**





# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
Department of Mechanical Engineering,  
National Institute of Technology Karnataka, Surathkal-575025



## Conference Session 12 : SI Engines Experimental Techniques

Date: 16<sup>th</sup> Dec, 2017

Chair: Dr. Subhash Lahane

Co-chair: Dr. Ganesh

Time: 04:15 PM – 05:45 PM

Venue: Room no. CR3

Paper ID	Paper Title	Authors	Time
25NCICEC036	PERFORMANCE CHARACTERISTIC OF NITROMETHANE BLENDS ON A SMALL TWO-STROKE ENGINE	RAVITEJA S PALASH PATOLE RAMAKRISHNA P. A RAMESH A	04: 15 AM To 04: 30 AM
25NCICEC051	AN EXPERIMENTAL STUDY ON VARIOUS DECISION TREE ALGORITHMS FOR MISFIRE DETECTION USING CRANKSHAFT INSTANTANEOUS ANGULAR VELOCITY FOR THE GASOLINE FUELED INTERNAL COMBUSTION ENGINE	SRI BHASWATH AKELLA SHIBU CLEMENT SIDDHANT RATHORE SHREYASH KUMAR CHETAN GOUR R B PAUL	04: 30 PM To 04: 45 PM
25NCICEC065	A STUDY ON THE EFFECTS OF THE INTAKE PORT CONFIGURATIONS ON THE TUMBLE FLOW GENERATED IN GDI ENGINE	PARAMESH CHINTALA BHADRARIAH KARANAM	04: 45 PM To 05: 00 PM
25NCICEC117	EFFECT OF OPERATING PARAMETERS ON COMBUSTION ANOMALIES AND CYCLIC VARIATIONS IN A HYDROGEN FUELLED SPARK IGNITION ENGINE	VIPIN DHYANI K.A. SUBRAMANIAN	05: 00 PM To 05: 15 PM
25NCICEC172	COMBUSTION ANALYSIS OF LPG ALONG WITH STEAM INDUCTION COMPARED WITH E20 IN A MPFI ENGINE	SHANKAR K. S VIGHNESHA NAYAK MOHANAN P	05: 15 PM To 05: 30 PM
25NCICEC199	A FEASIBILITY STUDY OF AN ELECTRICAL POWER GENERATION USING HYBRID SPARK IGNITION ENGINE AND SOLAR PHOTOVOLTAIC SYSTEM	RAMESH JEERGAL K. A SUBRAMANIAN	05: 30 PM To 05: 45 PM

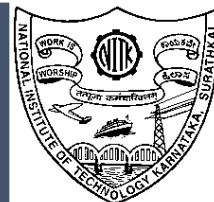


**07:00-09:30 Dinner/Musical Night (Seminar Hall)**



# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
Department of Mechanical Engineering,  
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**Conference Session 13 : Performance, Emission and Pollution control**

**Date: 17<sup>th</sup> Dec, 2017**

**Chair: Dr. R K Hegade**

**Co-chair: Dr. Shankar K S**

**Time: 09:00 AM – 10:30 AM**

**Venue: Room no. CR1**

<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>	<b>Time</b>
25NCICEC042	EXPERIMENTAL EVALUATION OF PHYSICAL, CHEMICAL AND EMISSION CHARACTERISTICS OF ENZYMATIC BIODIESEL	JILSE SEBASTIAN MURALEEDHARAN C SANTHIAGU A	09: 00 AM To 09: 15 AM
25NCICEC058	PARAMETRIC OPTIMIZATION OF APPLICATION OF 2 ETHYLE-HEXYL-NITRATE ON PARTIAL SUBSTITUTION OF ETHANOL IN DIESEL FOR FUEL ECONOMY AND EMISSION CONTROL	AMIT R. PATIL A. D. DESAI	09: 15 AM To 09: 30 AM
25NCICEC097	PERFORMANCE AND EMISSION CHARACTERISTICS OF DIETHYL ETHER BLENDED IN COTTON SEED METHYL ESTER USING A DIRECT INJECTION DIESEL ENGINE UNDER THE INFLUENCE OF 1,4-DIOXANE	P.MEBIN SAMUEL G.DEVARADJANE V.GNANAMOORTHY	09: 30 AM To 09: 45 AM
25NCICEC060	PERFORMANCE AND EMISSION CHARACTERISTICS OF PREHEATED HIGHER BLENDS OF PONGAMIA METHYL ESTER AND B20 IN 4-S, SINGLE CYLINDER C.I. ENGINE	PRASANNA S. MAHANKAR DR. MOHANAN P	09: 45 AM To 10: 00 AM
25NCICEC163	IMPACT OF RANDOM DRIVE CYCLE ON VEHICULAR FUEL ECONOMY AND EMISSIONS	SUNIL KUMAR PATHAK VINEET SOOD YOGRAJ SINGH S. A. CHANNIWALA	10: 00 AM To 10: 15 AM
25NCICEC067	EFFECT OF DIESEL VAPOUR INDUCTION AND AIR PREHEATING ON THE EXHAUST GAS TEMPERATURE OF A DI DIESEL ENGINE ACHIEVING HCCI MODE OF COMBUSTION	SUMANLAL M. R. SREERAM NANDAKUMAR MOHANAN P	10.15 AM To 10.30 AM



**10: 30-11:00 Tea Break (Cafeteria)**

**PLENARY LECTURE 6 : Prof. U. S. P. SHET**

**TIME: 11:00 to 12:00**

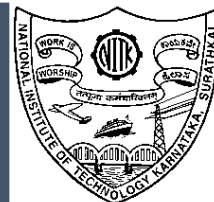
**Session Chair: Prof. MKG Babu**





# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
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## Conference Session 14: New Combustion Technologies

Date: 17<sup>th</sup> Dec, 2017

Chair: Dr. S A Yadav

Co-chair: Dr. Anish S

Time: 09:00 AM – 10:30 AM

Venue: Room no. CR2

Paper ID	Paper Title	Authors	Time
25NCICEC013	ENGINES OF MILITARY COMBAT VEHICLES- OPERATIONAL CONSTRAINTS AND TECHNOLOGIES FOR PERFORMANCE ENHANCEMENT	S N YADAVA SANJEEV KUMAR	09: 00 AM To 09: 15 AM
25NCICEC122	EXPERIMENTAL CHARACTERIZATION OF INVERSE JET DIFFUSION FLAME STABILITY IN CIRCUMFERENTIALLY ARRANGED PORT BURNER	VISHNU HARIHARAN D. P. MISHRA	09: 15 AM To 09: 30 AM
25NCICEC133	SPRAY CHARACTERISTICS OF MERHANOL- IN-DIESEL EMULSION	ANUPAM GHOSH R V RAVIKRISHNA	09: 30 AM To 09: 45 AM
25NCICEC174	EFFECT OF HYDROGEN ADDITION ON BURNING VELOCITY OF LPG-AIR MIXTURES AT ELEVATED TEMPERATURES	JITHIN E.V SHERIN GODSON R RATNA KISHORE V	09: 45 AM To 10: 00 AM
25NCICEC177	VARIABLE CROSS SECTION SWISS ROLL MICRO COMBUSTOR: EXPERIMENTAL INVESTIGATIONS USING HYDROGEN AS FUEL	SHAH R. R KULSHRESHTHA DIGVIJAY CHAUDHARI N. R CHANNIWALA S. A	10: 00 AM To 10: 15 AM
25NCICEC187	EXPERIMENTAL EVALUATION OF ANNULAR STRAIGHT FLOW COMBUSTOR	MURALIDHARA H S MUTHUSELVAN G JEYASEELAN A RAJESHWARI N SIVAKUMAR NARIHARAN R VIJAYARANI V	10: 15 AM To 10: 30 AM



10:30-11:00 Tea Break (Cafeteria)

**PLENARY LECTURE 6 : Prof. U. S. P. SHET**

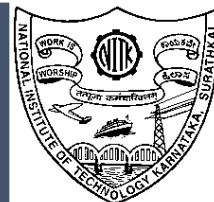
**TIME: 11:00 to 12:00**

**Session Chair: Prof. MKG Babu**



# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
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## Conference Session 15: CI Engines Experimental Techniques

Date: 17<sup>th</sup> Dec, 2017

Chair: Dr. Dhananjaya

Co-chair: Dr. Veershetty G

Time: 09:00 AM – 10:30 AM

Venue: Room no. CR3

Paper ID	Paper Title	Authors	Time
25NCICEC002	COMBUSTION CHARACTERISTICS OF BIOMETHANE-DIESEL DUAL FUELED CI ENGINE IN THE EXISTENCE OF EXHAUST GAS RECIRCULATION	MACHINDRA S. GAIKWAD KESHAV M. JADHAV AVINASH H. KOLEKAR PARSHURAM R. CHITRAGAR	09: 00 AM To 09: 15 AM
25NCICEC021	MULTIPLE INJECTION STRATEGIES TO IMPROVE A BIOGAS DIESEL PREDOMINANTLY PREMIXED CHARGE COMPRESSION IGNITION ENGINE	K. ABDUL RAHMAN A. RAMESH	09: 15 AM To 09: 30 AM
25NCICEC054	ON THE SUITABILITY OF EXISTING MODELS FOR PREDICTING IGNITION DELAY IN DIRECT INJECTION DIESEL ENGINES THAT USE MULTIPLE INJECTIONS	JENSEN SAMUEL J PAUL PRAMOD M ANAND MAMMEN THOMAS RAMESH A	09: 30 AM To 09: 45 AM
25NCICEC077	COMPARISON OF PERFORMANCE CHARACTERISTIC OF A SINGLE CYLINDER FOUR STROKE DIESEL ENGINE USING DIESEL AND KEROSENE – DIESEL BLEND	ROHIT NAILWAL NITIN KUKREJA	09: 45 AM To 10: 00 AM
25NCICEC082	THEORETICAL AND EXPERIMENTAL INVESTIGATION OF AIR SWIRL INDEX ON INTAKE SYSTEM IN DIRECT INJECTION CI ENGINE	V. T.VIMALANANTH V. GNANAMOORTHY G.DEVARADJANE	10: 00 AM To 10: 15 AM
25NCICEC199	A FEASIBILITY STUDY OF AN ELECTRICAL POWER GENERATION USING HYBRID SPARK IGNITION ENGINE AND SOLAR PHOTOVOLTAIC SYSTEM	RAMESH JEERGAL K. A SUBRAMANIAN	10: 15 AM To 10: 30 AM



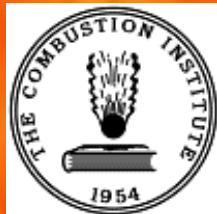
10:30-11:00 Tea Break (Cafeteria)

**PLENARY LECTURE 6 : Prof. U. S. P. SHET**

**TIME: 11:00 to 12:00**

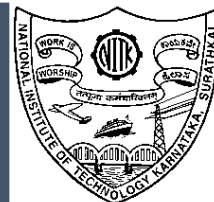
**Session Chair: Prof. MKG Babu**





# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

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## Conference Session 16 : CI Engines Experimental Techniques

Date: 17<sup>th</sup> Dec, 2017

Chair: Prof. G. Amba Prasad Rao

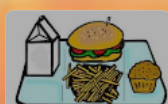
Co-chair: Dr. Veershetty G

Time: 12:00 PM – 01:30 PM

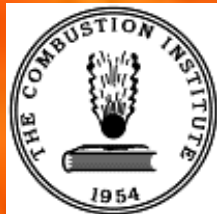
Venue: Room no. CR1

Paper ID	Paper Title	Authors	Time
25NCICEC132	THEORETICAL AND EXPERIMENTAL INVESTIGATIONS ON A CI ENGINE OPERATING IN DUAL FUEL MODE	P. V. MANU S. KAMESWARA RAO S. JAYARAJ A. RAMARAJU	12: 00 AM To 12: 15 PM
25NCICEC140	AN EXPERIMENTAL STUDY ON THE EFFECT OF INJECTION PARAMETERS ON THE ENGINE PERFORMANCE AND EMISSIONS WITH BLENDS OF AOME AND FOME AS A FUEL IN CI ENGINES	K. M. MRITYUNJAYA SWAMY RAMESHA.D.K H N VIDYASAGAR BHARATH. L	12: 15 PM To 12: 30 PM
25NCICEC185	COMBUSTION ANALYSIS OF WASTE PLASTIC OIL BLENDS WITH EGR	ARCHIT S. AYODHYA VENKATESH T. LAMANI KUMAR G N	12: 30 PM To 12: 45 PM
25NCICEC192	THE INVESTIGATION OF GEOMETRICAL PARAMETERS OF WASTE HEAT RECOVERY (WHR) THERMOSYPHON HEAT EXCHANGERS FOR DIESEL ENGINE	S.L. NADAF P. B. GANGAVATI	12: 45 PM To 01: 00 PM
25NCICEC194	EXPERIMENTAL INVESTIGATION OF CRDI ENGINE OPERATING ON JATROPHA CURCAS BLEND WITH VARIOUS HIGHER FUEL INJECTION PRESSURES	PARASHURAM BEDAR KUMAR G N	01: 00 PM To 01: 15 PM
25NCICEC037	EFFECT OF FUEL INJECTION PRESSURE AND INJECTION TIMING ON COMBUSTION OF VATARIA INDICA BIODIESEL	GANGADHARA RAO KUMAR G.N MERVIN A HERBERT	01: 15 PM To 01: 30 PM

01:30-02:00 Valedictory Programme (Seminar Hall)



02:00 Lunch (Cafeteria)



# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
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**Conference Session 17 : Combustion Dynamics, Chemical Kinetics, Turbulent Premixed combustion**

**Date: 17<sup>th</sup> Dec, 2017**

**Chair: Prof. P Mohanan**

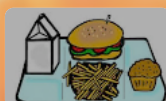
**Co-chair: Dr. Ajay Kumar Yadav**

**Time: 12:00 PM – 01:30 PM**

**Venue: Room no. CR2**

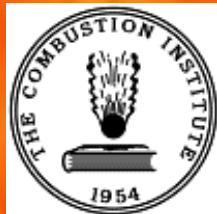
<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>	<b>Time</b>
25NCICEC072	STUDY OF MASS BURNING RATES OF METHANOL POOL WITH A CONCENTRIC AIR INJECTION PORT (LAMINAR DIFFUSION FLAMES)	SHARANYA NAIR VASUDEVAN RAGHAVAN ALI S. RANGWALA	12: 00 AM To 12: 15 PM
25NCICEC112	VAPOUR CONCENTRATION MEASUREMENTS IN EVAPORATING SPRAYS OF N-DODECANE	PRASAD BOGGAVARAPU R. V. RAVIKRISHNA	12: 15 PM To 12: 30 PM
25NCICEC190	HYDROCARBON FUEL DROPLET COMBUSTION IN ISOTROPIC TURBULENCE	UJAS PATEL NITESH KUMAR SRIKRISHNA SAHU	12: 30 PM To 12: 45 PM
25NCICEC202	EFFECT OF GRID-GENERATED TURBULENCE ON FLAME-HEIGHT OF PILOT-FLAME-STABILIZED OPEN PARTIALLY-PREMIXED FLAMES	BHARAT VIJAYVARGIYA P.SENTHIL KUMAR U.S.P.SHET T.SUNDARARAJAN	12: 45 PM To 01: 00 PM
25NCICEC198	AN EXPERIMENTAL STUDY ON AIRBLAST ATOMIZATION OF JATROPHA SVO AND ITS ETHANOL BLENDS	ANIKET P. KULKARNI VIVEK DHIMOLE D. DESHMUKH PRAVEEN ZALAYA	01: 00 PM To 01: 15 PM
25NCICEC200	PREMIXED FLAME PROPAGATION STUDIES IN A TUBE	RAJESH KUMAR T.J.S. JOTHI	01: 15 PM To 01: 30 PM

**01:30-02:00 Valedictory Programme (Seminar Hall)**



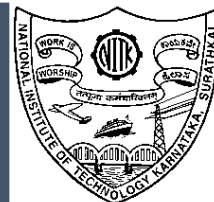
**02:00 Lunch (Cafeteria)**





# 25<sup>th</sup> NATIONAL CONFERENCE ON INTERNAL COMBUSTION ENGINES AND COMBUSTION

Organized by  
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## Conference Session 18 : SI Engines Experimental Techniques

Date: 17<sup>th</sup> Dec, 2017

Chair: Dr. M. Sreedhar Babu

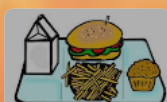
Co-chair: Dr. Ranjit M

Time: 12:00 PM – 01:30 PM

Venue: Room no. CR3

Paper ID	Paper Title	Authors	Time
25NCICEC120	IN-CYLINDER ENGINE FLOW ANALYSIS USING PROPER ORTHOGONAL DECOMPOSITION	ALI AHAMMED JASIM MAYANK MITTA	12: 00 AM To 12: 15 PM
25NCICEC123	INFLUENCE OF COMBUSTION DURATION AND SPARK ADVANCE ON PERFORMANCE AND EMISSION CHARACTERISTICS OF PRODUCER GAS FIRED S.I. ENGINE	PARTH D. SHAH SAURABH P. DOODHWALA TAHA POONAWALA S. A. CHANNIWALA	12: 15 PM To 12: 30 PM
25NCICEC148	STUDY ON DIFFERENT SPARK PLUG CONFIGURATIONS IN A MOTORCYCLE ENGINE	KEERTHI GANESH R NITHIN JOSEPH TITO BALASUBRAMANIAN N ANAND TNC	12: 30 PM To 12: 45 PM
25NCICEC088	AN EXPERIMENTAL STUDY TO EVALUATE THE PERFORMANCE, COMBUSTION AND EMISSION CHARACTERISTICS OF A VARIABLE COMPRESSION RATIO SPARK-IGNITION ENGINE AT DIFFERENT OPERATING CONDITIONS	SACHIN KUMAR GUPTA KARTHIKEYAN R MAYANK MITTAL	12: 45 PM To 01: 00 PM
25NCICEC193	EFFECT OF SPARK TIMINGS ON COMBUSTION AND EMISSIONS CHARACTERISTICS OF 4 CYLINDER 4 STROKE S. I. ENGINE USING HYDROGEN AT 1800 RPM	P R CHITRAGAR KUMAR G N	01: 00 PM To 01: 15 PM
25NCICEC059	EXPERIMENTAL INVESTIGATION ON GASOLINE FUMIGATION IN OPEN ECU WITH AL <sub>2</sub> O <sub>3</sub> NANO ADDITIVE BLENDED WITH DIESEL IN SINGLE CYLINDER DIESEL ENGINE	M.BHARATHIRAJA DR.R.VENKATACHALAM DR.N.NEDUNCHEZHIAN DR.S.DHANDAPHANI	01: 15 PM To 01: 30 PM

01:30-02:00 Valedictory Programme (Seminar Hall)



02:00 Lunch (Cafeteria)