

**(REGISTRATION AND INAUGURAL FUNCTION WILL BE HELD AT
MAHAMANA HALL, SEMINAR COMPLEX, Institute of Science, BHU,
Varanasi)**

**SCHEDULE OF PLENARY TECHNICAL PROGRAMME,
(MAHAMANA HALL)**

MONDAY, FEBRUARY 25, 2019

8.00– 10.00: REGISTRATION

8.00- 9.00: Breakfast (Tea/Coffee/Cookies)

10.00 – 11.00: INAUGURAL FUNCTION (MAHAMANA HALL)

**Chief Guest: Prof. Nemy Banthia, Scientific Director and CEO, Canada-India
Research Center of Excellence.**

**Guest of Honours: Prof. Ramesh Talreja, Texas A&M, USA; Prof. Suong Van
Hoa, Concordia University, Quebec; Prof. Alessandro
Pegoretti, Trento, Italy; Prof. Walter Krenkel, Bayreuth,
Germany; Prof. Ulrich Gabbert, Magdeburg, Germany.**

11.15-11.40: Tea/Coffee (High Tea)

**11.45 – 12.45: INVITED PLENARY SESSION IN THE HONOUR OF PROF. THOMAS
GRIES, ITA, RWTH, AACHEN GERMANY.**

11.45- 12.45: PLENARY SESSION -1

**Session Chair: Prof. Lothar Kroll, Chemnitz University of Technology,
Germany**

Co-Chair: Prof. Thomas Gries, ITA, RWTH, Aachen, Germany.

11.45 – 12.15: Prof. Thomas Gries, ITA, RWTH, Aachen, Germany.

**(IPS-12, Automation and Digitalization Technologies for Production of Fibre
Reinforced Polymers).**

12.15 – 12.45: Prof. Sabu Thomas, Mahatma Gandhi University, Kottayam, Kerala.

**(IPS-23, Engineering at the Nanoscale: A Strategy for Developing High
Performance Functional Eco-Friendly Polymer Nanocomposites).**

12.45 – 13.00: Tea/Coffee

13.00-14.15: INVITED PLENARY SESSION IN THE HONOUR OF PROF. LOTHAR KROLL, CHEMNITZ UNIVERSITY OF TECHNOLOGY, GERMANY AND PROF. ALESSANDRO PEGORETTI, UNIVERSITY OF TRENTO, ITALY.

13.00- 14.15: **PLENARY SESSION -2**

Session Chair: **Prof. Thomas Gries, ITA, RWTH, Aachen, Germany.**

Co-Chair: **Prof. Alessandro Pegoretti, University of Trento, Italy.**

13.00 – 13.25: **Prof. Lothar Kroll**, Chemnitz University of Technology, Germany
(IPS-33, Combination of basic technologies suitable for large-scale production for the resource-efficient manufacture of lightweight structures in automotive construction)

13.25 – 13.50: **Prof. Ramesh Talreja**, Texas A&M University, USA
(IPS-2, Manufacturing Sensitive Design of Composite Materials for Structural Performance).

13.50-14.15: **Prof. Alessandro Pegoretti**, University of Trento, Italy.
(IPS-18, Fused filament fabrication with polymer nanocomposites)

14.15 – 15.00: LUNCH

15.00 – 16.00: INVITED PLENARY SESSION IN THE HONOUR OF PROF. WALTER KRENKEL, UNIVERSITY OF BAYREUTH, GERMANY.

15.00- 16.00: **PLENARY SESSION -3**

Session Chair: **Prof. R. N. Singh, Oklahoma State University, Tulsa, USA**

Co-chair: **Prof. Bikramjit Basu, Indian Institute of Science, Bangalore**

15.00 – 15.30: **Prof. Walter Krenkel**, University of Bayreuth, Germany
(IPS-14, Ceramic Matrix Composites: Materials für Lightweight and High Temperature Structures).

15.30-16.00: **Prof. Bikramjit Basu**, Indian Institute of Science, Bangalore, India.
(IPS-25, Ultra-High Temperature Ceramics for Hypersonic Space Vehicles: Opportunities and Challenges)

16.00-16.15: **Tea/Coffee**

16.15 – 17.05: INVITED PLENARY SESSION IN THE HONOUR OF PROF. MÁRIO G.S. FERREIRA, UNIVERSITY OF AVEIRO, PORTUGAL.

16.15- 17.05: PLENARY SESSION -4

Session Chair: **Prof. Walter Krenkel**, University of Bayreuth, Germany

Co-chair: **Prof. Mamoru Senna**, Keio University, Japan

16.15-16.40: **Prof. Mário G.S. Ferreira**, University of Aveiro, Portugal
(IPS-15, Multifunction Nanostructured Coatings).

16.40-17.05: **Prof. Mamoru Senna**, Keio University, Japan
(IPS-11, Complex formation and reduction of metal oxide nanoparticles via a mechanochemical route for energy-related application).

17.05-17.30: Tea/Coffee

17.30-20.30: Free to go for Site Seen as per your wish.

SCHEDULE OF PLENARY TECHNICAL PROGRAMME,
(MAHAMANA HALL)

TUESDAY, FEBRUARY 26, 2019

8.15-8.45: Breakfast (Tea/Coffee/Cookies)

9.00 – 10.00: INVITED PLENARY SESSION IN THE HONOUR OF PROF. NEMKUMAR (NEMY) BANTHIA, UNIVERSITY OF BRITISH COLUMBIA, CANADA

9.00- 10.00: PLENARY SESSION -5
Session Chair: **Prof. Klaus Holshmacher, HTWK, Leipzig, Germany**
Co-Chair: **Prof. Lothar Kroll, Chemnitz University of Technology, Germany**

9.00 – 9.30: Prof. Nemkumar Bantbia, University of British Columbia, Canada
(IPS-5, Adaptive and Bio-Derived Cement-Based Composites for Next Generation Smart Infrastructure).

9.30 – 10.00: Prof. Mauro Giorcelli, Politecnico Torino, Torino, Italy.
(IPS-22, A new filler for composites: Biochar from vegetable waste).

10.00-10.15: Tea/Coffee

10.15-11.30: INVITED PLENARY SESSION IN THE HONOUR OF PROF. ULRICH GABBERT, OTTO VON GUERICKE UNIVERSITY OF MAGDEBURG, GERMANY AND PROF. K.E. TANNER, QUEEN MARY UNIVERSITY OF LONDON, UK.

10.15-11.30: PLENARY SESSION-6
Session Chair: **Prof. Walter Krenkel, University of Bayreuth, Germany**
Co-chair: **Prof. Alessandro Pegoretti, University of Trento, Italy.**

10.15-10.40: Prof. Ulrich Gabbert, Otto-Von Guericke University, Magdeburg, Germany
(IPS-16, Health monitoring of safety-relevant composite structures through ultrasonic guided waves).

10.40 – 11.05: Prof. K.E. Tanner, Queen Mary University of London, UK.
(IPS-4, Load bearing composites for bone bioactivity)

11.05-11.30: Prof. Raj N. Singh, Oklahoma State University, USA.
(IPS-28, Designing Ceramic Composites for Use at High Temperatures: Current Trends and Future Prospects)

11.30-11.35: Tea/Coffee

11.35- 12.25: INVITED PLENARY SESSION IN THE HONOUR OF PROF. HOA, CONCORDIA UNIVERSITY MONTREAL, QUEBEC, CANADA.

11.35- 12.25: Plenary Session-7

Session Chair: **Dr. Ajit K. Roy, AFRL, USA**

Co-chair: **Dr. Hilmar Koerner, AFRL, USA**

11.35 -12.00: **Prof. Suong Van Hoa, Concordia University Montreal, Quebec, Canada.**
(IPS-6, 4D printing of composites).

12.00-12.25: **Prof. Klaus Holschemacher, Structural Concrete Institute, Leipzig, Germany**
(IPS-13, Carbon Concrete Composite for Precast Concrete Industry).

12.25-12.30: **Tea/Coffee**

12.30- 13.45: INVITED PLENARY SESSION IN THE HONOUR OF PROF. KLAUS HOLSCHMACHER, STRUCTURAL CONCRETE INSTITUTE, LEIPZIG, GERMANY AND PROF. RAJ N. SINGH, OKLAHOMA STATE UNIVERSITY, USA.

12.30- 13.45: Plenary Session-8

Session Chair: **Prof. Ramesh Talreja, Texas A&M University, USA**

Co-chair: **Prof. Valter Carvelli, Politecnico di Milano, Italy.**

12.30-12.55: **Prof. Valter Carvelli, Politecnico di Milano, Italy**
(IPS-17: Fatigue limit of textile composites: a link to quasi-static damage)

12.55-13.20: **Prof. O. N. Srivastava, BHU, Varanasi, India**
(IPS-1, Synthesis, Growth of polymer (polyacrylamide) and carbon nanotube (MWNT, SWNT)/Graphene composites).

13.20-13.45: **Prof. Sekhar Chandra Ray, University of South Africa, Johannesburg.**
(IPS-26, Graphene: The Wonder 2D-material of the 21st century).

14.00 – 15.00: LUNCH

15.00 – 16.00: INVITED PLENARY SESSION IN THE HONOUR OF PROF. RAMESH TALREJA, TEXAS A&M UNIVERSITY, USA

15.00- 16.00: PLENARY SESSION-9

Session Chair: **Prof. Suong Van Hoa, Concordia University, Quebec, Canada**

Co-chair: **Prof. Mauro Giorcelli, Politecnico Torino, Torino, Italy.**

15.00 – 15.30: **Prof. Hazizan Md Akil, Universiti Sains Malaysia, Pulau Pinang.**
(IPS-24: 3D Printing of Polymers and their Composites)

15.30-16.00: **Dr. Ajit K. Roy, AFRL, USA.**
(IPS-19, Materials Innovation and Design in Fast Track)

16.00-16.15: Tea/Coffee

16.15 – 17.05: INVITED PLENARY SESSION IN THE HONOUR OF PROF. ANDREAS T. ECHTERMAYER, NTNU TRONDHEIM NORWAY.

16.15 – 17.05: Plenary Session-10

Session Chair: **Prof. Ulrich Gabbert, Otto Von Guericke University, Magdeburg, Germany.**

Co-chair: **Prof. John Summerscales, University of Plymouth, United Kingdom.**

16.15-16.40: **Prof. Andreas T. Echtermeyer, NTNU Trondheim Norway.**
(IPS-7, Using multiscale modelling to describe long-term degradation of composites)

16.40-17.05: **Prof. John Summerscales, University of Plymouth, United Kingdom.**
(IPS-35, A new rule of mixtures for natural fibre composites)

17.05-17.30: Tea/Coffee

19.00-21.00: Cultural Program followed by Dinner in Seminar Complex, Institute of Science, BHU.

SCHEDULE OF PLENARY TECHNICAL PROGRAMME,
(MAHAMANA HALL)

WEDNESDAY, FEBRUARY 27, 2019

8.15-8.45: Breakfast (Tea/Coffee/Cookies)

9.00 – 10.25: INVITED PLENARY SESSION IN THE HONOUR OF PROF. MAMORU SENNA, KEIO UNIVERSITY, JAPAN

9.00- 10.25: PLENARY SESSION -11

Session Chair: **Prof. Ulrich Gabbert**, Otto Von Guericke University, Germany.
Co-Chair: **Prof. Andreas T. Echtermeyer**, NTNU Trondheim Norway.

9.00 – 9.30: Prof. Yogendra Prasad Yadava, Universidade Federal de Pernambuco, Brasil
(IPS-27, Development and Production of Zirconia-Titania Ceramic Coatings reinforced with Rare Earth Oxides for application in the exhaust system of gas turbines in the aerospace sector)

9.30-10.00: Prof. Hom Nath Dhakal, University of Portsmouth, UK.
(IPS-20, Hybridisation approach into composites and Biocomposites for improved performance: Mechanisms, opportunities and challenges).

10.00-10.25: Dr. Jeffery Baur, AFRL, USA
(IPS-32, Printable Epoxy Carbon Fiber-Reinforced Thermosetting Composites and Their Mechanical Properties)

10.25-10.35: Tea/Coffee

10.40 – 11.30: INVITED PLENARY SESSION IN THE HONOUR OF PROF. CHRISTOPHER C. BERNDT, SWINBURNE UNIVERSITY OF TECHNOLOGY, AUSTRALIA.

10.40 – 11.30: PLENARY SESSION -12

Session Chair: **Prof. Ramesh Talreja**, Texas A&M University, USA
Co-Chair: **Dr. Shashi P. Karna**, US Army Research Laboratory, USA.

10.40 – 11.05: Prof. Christopher C. Berndt, Swinburne University of Technology, Australia
(IPS-21, Microstructural - mechanical properties relationships of thermal spray coatings).

11.05 -11.30: Dr. Shashi P. Karna, US Army Research Laboratory, USA
(IPS-31, Multifunctional High Performance Power Storage Devices Using Carbonaceous Nanocomposites)

11.30-11.35: Tea/Coffee

13.30 – 14.30: LUNCH

17.00-17.30: Tea/Coffee

14.30-19.00: Site Seen arranged by organiser

**19.00-21.30: Cultural Program followed by Banquet in Swatantrata Bhawan,
BHU, Varanasi.**

THURSDAY, FEBRUARY 28, 2019

9.00-9.30: Breakfast (Tea/Coffee/Cookies)

**11.00- 12.00: VALEDICTORY FUNCTION (MAHAMANA HALL, Seminar Complex,
Institute of Science, BHU)
Followed by distribution of participation certificate and distribution of best
paper award**

Chief Guest: Prof. Walter Krenkel, University of Bayreuth, Germany.

Guest of Honour: Prof. Mamoru Senna, Keio University, Japan.

12.00 – 12.30: High Tea

**(REGISTRATION AND INAUGURAL FUNCTION WILL BE HELD AT,
MAHAMANA HALL, Seminar Complex, Institute of Science, BHU,
Varanasi)**

**Delegates of oral and poster presentation category are requested to attend
PLENARY SESSION in MAHAMANA HALL as per interest from 25th to 27th
February, 2019.**

TUESDAY, February 26, 2019

8.15-8.45: Breakfast (Tea/Coffee/Cookies)

10.00-10.15: Tea/Coffee

SCHEDULE OF CONTRIBUTORY TECHNICAL PROGRAMME

10.15- 13.30: CONTRIBUTORY ORAL SESSION IN THE HONOUR OF PROF. O. N. SRIVASTAVA, BHU, VARANASI.

LT-2; Session A: Polymer Matrix Composites: Manufacturing and Mechanical Properties

Session Chair: Dr. A. Vanaja, CSIR-National Aerospace Laboratories.

Co-Chair: Dr. Soria Sánchez M. Institute of Material Science of Barcelona, Spain.

10.15 – 10.35: **Soria Sánchez M.** Department of Solid State Chemistry, Institute of Material Science of Barcelona - ICMAB, CSIC, Spain.
(OP-1: Synthesis of polymers nanocomposites reinforced with graphene-based materials for 3d printing applications).

10.35-10.55: **Ashok Rajpurohit**, Chomarat Textile Industries, 39 avenue de chabannes, 07160 Le Cheylard, France.
(OP-2: Development and performance evaluation of inter-ply and intra-ply hybrid fabric reinforcements and their composites).

10.55-11.10: **Madhusudhanan. U**, Department of Aerospace Engineering, IIT Kanpur, Kanpur, Uttar Pradesh 208016, India
(OP-5: Effect of surface roughness and strain rate on co-cured aluminium/composite interface peel strength).

11.10-11.25: **Sarthak S. Singh**, Department of Aerospace Engineering, IIT Kanpur-208016, India.
(OP-8: Influence of filler shape on the dynamic mechanical properties of glass reinforced epoxy composites).

11.30-11.35: **Tea/Coffee**

11.35-11.50: **Shashi Prakash**, School of Engineering & Applied Science, Ahmedabad University, Ahmedabad, Gujarat
(OP-48: An Investigation of Low Power CO2 Laser Machining of Glass Fiber Reinforce Polymer Composite)

- 11.50-12.05: **Tankeshwar Prasad**, Department of Mechanical Engineering, National Institute of Technology Silchar, Silchar-788010, Assam, India.
(OP-11: Reinforcing effects of imidazole-modified nanosilica on thermal and mechanical properties of anhydride-cured epoxy system).
- 12.05-12.20: **Srinivasa Prasad K S**, Department of Mechanical Engineering, PESIT BSC, Bangalore, Karnataka.
(OP-31: Free and Forced Vibration Characteristics of a Flax Fibre Reinforced Composite Beam with Viscoelastic Core).
- 12.25-12.30: **Tea/Coffee**
- 12.30-12.45: **Mr. Jogendra Kumar**, Department of Mechanical Engineering, Madan Mohan Malaviya University of Technology, Gorakhpur-273010 India.
(OP-67: Exploration of WPCA based hybrid Taguchi approach for Multi-attribute optimization in Machining of Glass Fiber Reinforced polyester Composites)
- 12.45-13.00: **T. Quadflieg**, Institut fuer Textiltechnik of RWTH Aachen University, Aachen, Germany.
(OP-85: Automation and Digitalization Technologies for Production of Fibre Reinforced Polymers)
- 13.00-13.15: **S Sachin**, Dept. of Mechanical Engg., NITK, Surathkal, Karnataka, India.
(OP-39: Experimental Investigation of Mode I & Mode II Fracture Toughness on T300/914 Composite).
- 13.15-13.30: **P. K. Sahoo**, CSIR-National Aerospace Laboratories, Bangalore-560017, India.
(OP-97: Influence of CNT-modification on Mechanical and Electrical Conductive Properties of CFRP Composites).

14.00-15.00: LUNCH

10.15- 13.50: CONTRIBUTORY ORAL SESSION IN THE HONOUR OF DR. AJIT K. ROY, AFRL, USA.

LT-3; Session B: Composites: Analytical, Modeling and Simulation

Session Chair: Dr. José Humberto, Leibniz-Institut für Polymerforschung Dresden, Germany.

Co-Chair: Dr. Buragadda V Rajasekhar, VSSC, ISRO, Thiruvananthapuram, India.

- 10.15 – 10.35: **Faisal Islam**. MINES Paris Tech, PSL - Research University, MAT - Centre des Matériaux, CNRS UMR 7633 BP 87, 91003 Evry Cedex, France.
(OP-3: Effect of uncertainty in characterization on the variability of fibre strength distributions).
- 10.35 – 10.55: **José Humberto S.**, Mechanics and Composite Materials Department, Leibniz-Institut für Polymerforschung Dresden, Hohe Straße 6, 01069 Dresden, Germany.
(OP-94: Buckling Optimization Of Variable-Axial Composite Plates Edgewise Loaded In Compression).
- 10.55-11.10: **Jairaja R**, Department of Aerospace Engineering, Indian Institute of Science, Bangalore – 560012, India.
(OP-23: Numerical study of weak bond effects in single and dual adhesive bonded single lap joint between CFRP and aluminium).

- 11.10-11.25: **Ravi Kumar**, Department of Civil Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi 221005, India.
(OP-26: Static analysis of laminated composite and sandwich plates using improved trigonometric zig-zag model).
- 11.30-11.35: **Tea/Coffee**
- 11.35-11.50: **S. Koley**, Department of Aerospace Engineering IIT Kanpur, India.
(OP-27: Effect of Boundary Layer at the Free Edge on the prediction of initiation of damage in composites)
- 11.50-12.05: **N. Sharma**, Department of Aerospace Engineering, Indian Institute of Technology, Kharagpur 721302, India.
(OP-33: Time Domain Flutter Analysis Using Rational Function Approximation)
- 12.05-12.20: **Shantaram M. Ghumre**, Department of Civil Engineering, Sanjivani College of Engineering, Savitribai Phule Pune University, Kopargaon, Maharashtra, India-423603,
(OP-37: Analytical Solution using Fifth Order Shear and Normal Deformation Theory for FG Plates resting on Elastic Foundation subjected to Hygro-Thermo-Mechanical Loading)
- 12.25-12.30: **Tea/Coffee**
- 12.30-12.50: **COMSOL**
- 12.50-13.05: **Nitin S. Naik**, Civil Engineering Department, Sanjivani College of Engineering, Kopargaon, S.P.Pune University, Maharashtra, Kopargaon 423 603, India.
(OP-36: 1D Thermal Analysis of Laminated Composite and Sandwich Plates using A New Fifth Order Shear and Normal Deformation Theory).
- 13.05 – 13.20: **B. Ramgopal Reddy**, R.V.R & J.C. College of Engineering, Guntur - 522 019, Andhra Pradesh, India.
(OP-44: Modeling and Evaluation of Effective Elastic Properties of Carbon Nanotubes Reinforced Carbon Fiber/Epoxy Multiscale Composites).
- 13.20-13.35: **P M G Bashir Asdaque**, Department of Applied Mechanics, IIT Delhi, Hauz Khas, New Delhi-110016.
(OP-52: Nonlinear dynamic response of electromechanically coupled, Piezoelectric-laminated composite beams under large displacements and rotations)
- 13.35-13.50: **Rucha Laulkar**, Marathwada Mitra Mandal's College of Engineering, Pune.
(OP-55: Flexural Behaviour Of Sandwich Structures With Rohacell 71-Hero Foam And Ox-Honeycomb Cores)
- 14.00-15.00: LUNCH**

TUESDAY, February 26, 2019

SCHEDULE OF CONTRIBUTORY TECHNICAL PROGRAMME

15.00- 17.15: CONTRIBUTORY ORAL SESSION IN THE HONOUR OF PROF. JOHN SUMMERSCALES, UNIVERSITY OF PLYMOUTH, UK.

LT-2; Session C: Composites: Analytical, Modeling and Simulation

Session Chair: Dr. B. N. Mondal, CSIR-CMERI, Durgapur.

Co-Chair: Dr. Jeffery Baur, AFRL, USA.

- 15.00-15.15: **Prashant Bawa**, Centre for Product Design and Manufacturing, Indian Institute of Science, Bangalore, India.
(OP-95: An improved constitutive model for non-linear behaviors of laminated composites in principal and off-axis directions).
- 15.15-15.30: **T. R. Patle**, Defense Institute of Advanced Technology (Deemed University), Pune, India.
(OP-56: Damage Growth Analysis in Adhesively Bonded Patch Repaired Composite Panel).
- 15.30 – 15.45: **Bharti M. Shinde**, Department of Civil Engineering, Sanjivani College of Engineering Kopergaon, Savitribai Phule Pune University, Maharashtra, India.
(OP-57: Static Deformation of Orthotropic Spherical Shell Using Fifth Order Shear Deformation Theory)
- 15.45.-16.00: **Parth K. Kamaliya**, Department of Mechanical & Industrial Engineering, Indian Institute of Technology Roorkee, India.
(OP-60: Behaviour of wrinkles and wrinkle-crease interaction for laminated space membrane structures under different loading conditions).
- 16.00-16.15: **Tea/Coffee**
- 16.15-16.30: **S. Bandyopadhyaya**, Department of Aerospace Engineering, IIT Kanpur, Kanpur, Uttar Pradesh 208016.
(OP-69: Strain Measurement in Soft Materials by Using DIC Technique)
- 16.30-16.45: **Mohammad Amir**, School of Engineering, Indian Institute of Technology Mandi, India
(OP-59: Effect of the actuating voltage on free vibration response of smart functionally graded arches with microstructural defects).
- 16.45-17.00: **A. Pandey**, SMMME- IIT Bhubaneswar.
(OP-22: Multiscale Modelling of Temperature Gradient Forced Chemical Vapor Infiltration for C-C Composite Manufacturing).
- 17.00-17.15: **Abhay Kumar Chaubey**, Department of Civil Engineering, NIT Patna, Patna-800005, India.
(OP-77: Effect of multiple cutouts on shear buckling of laminated composite spherical shells).
- 17.15-17.30: Tea/Coffee**

15.00- 17.00: CONTRIBUTARY ORAL SESSION IN THE HONOUR OF DR. JEFFERY BAUR, AFRL, USA.

LT-3; Session D: Polymer Matrix Composites: Mechanical Behaviour

Session Chair: Dr. Till Quadflieg, Institut fuer Textiltechnik of RWTH Aachen University, Germany.

Co-Chair: Prof. Anchal Srivastava, Banaras Hindu University, India.

- 15.00-15.15: **B.S.K. Gargeya**, Department of Materials Engineering, Indian Institute of Science, Bangalore, India.
(OP-47: Study of debonding phenomena at interface and its implication on mechanical behaviour of epoxy-CNT nano-composite using molecular dynamics simulation).
- 15.15-15.30: **Sute Piyush Prakash**, Department of Aerospace Engineering, Indian Institute of Technology, Kanpur.
(OP-61: Effect of Temperature on B-Stage Curing of Prepegs and Characterization of Composites)
- 15.30 – 15.45: **Dipti Saxena**, Indian Institute of Technology (Banaras Hindu University), Varanasi, India.
(OP-64: Structural, Mechanical and Gas Barrier Properties of Nanoclay filled Poly(ethylene terephthalate) Nanohybrid)
- 15.45-16.00: **Amit Kumar Soni**, DMSRDE, DRDO, Kanpur..
(OP-71: Design of radar absorbing structures by incorporating barium hexaferrite in E-glass/epoxy composites for stealth application).
- 16.00-16.15: **Tea/Coffee**
- 16.15-16.30: **S. S. Godara**, Department of Mechanical Engineering, IIT(ISM) Dhanbad.
(OP-74: Effect of Interface between CNT and Polyimide on the Elastic and Piezoelectric Properties of Hybrid Smart nano-composites).
- 16.30-16.45: **Vemu Vara Prasad**, Department of Mechanical Engineering, UCEK (A), JNTUK, Kakinada-533003.
(OP-75: Mechanical Characterization of Carbon Fiber Reinforced Composite - Variety of Single Lap Joint)
- 16.45-17.00: **P. R. Krishna Mohan**, Department of Aerospace Engineering, Indian Institute of Technology, Kanpur.
(OP-78: Characterization of Prepreg Based Discontinuous Composites under Compression)

17.05-17.30: Tea/Coffee

19.00-21.00: Cultural Program followed by Dinner in Seminar Complex, Institute of Science, BHU.

WEDNESDAY, February 27, 2019

8.15-8.45: Breakfast (Tea/Coffee/Cookies)

10.25-10.35: Tea/Coffee

SCHEDULE OF CONTRIBUTARY TECHNICAL PROGRAMME

10.45- 13.20: CONTRIBUTARY ORAL SESSION IN THE HONOUR OF PROF. VALTER CARVELLI, POLITECNICO DI MILANO, ITALY.

LT-2; Session E: Composites: Analytical, Modeling and Simulation

Session Chair: Dr. B. N. Mondal, CSIR-CMERI, Durgapur

Co-Chair: Dr. Rajeev Chaturvedi, Scientist-SE, ISRO Satellite Centre, Bangalore, 560017.

- 10.45-11.00: **Rajeev Chaturvedi**, Scientist-SE, ISRO Satellite Centre, Bangalore, 560017.
(OP-21: Impact Penetration through Spacecraft Honeycomb panels Analytical, Numerical and Experimental Study).
- 11.00-11.15: **Deepesh Raj**, Indian Institute of Science, Bengaluru.
(OP-63: Estimation of material properties of Metal Matrix Composites using Finite Element Method in the presence of micromechanics damages).
- 11.15-11.30: **Prakash Jadhav**, Department of Mechanical Engineering, SRM University AP, Amravati, India.
(OP-79: Innovative Designs of Embedded Foam Inserts in Aerospace Composite Structures).
- 11.30-11.35: **Tea/Coffee**
- 11.35-11.50: **Tanmoy Loha**, Department of Mechanical Engineering, National Institute of Technology Silchar, India
(OP-81: Stochastic nonlocal frequencies of rotating single walled carbon nanorods).
- 11.50-12.05: **Anil Kumar Upadhyay**, Scientist 'F', R&DE (Engrs), DRDO, Pune, 411015.
(OP-83: Effective Elastic Modulus of Perforated Cylindrical Tube: Experiment and Computation).
- 12.05-12.20: **Rohit D. Nikam**, Department of Civil Engineering, Sanjivani College of Engineering, Kopergaon, Savitribai Phule Pune University, Pune, Maharashtra, India-423603.
(OP-87: Bending, buckling and free vibration analysis of FG nanobeam).
- 12.20-12.35: **Pravin V. Avhad**, Department of Civil Engineering, Sanjivani College of Engineering Kopergaon, Savitribai Phule Pune University, Maharashtra.
(OP-89: Static analysis of functionally graded composite beams curved in elevation using higher order normal and shear deformation theory).
- 12.35-12.50: **H S Panda**, School of Architecture and Planning, Campus-7, KIIT University, Bhubaneswar, Odisha-751024, INDIA.
(OP-93: Parametric instability of delaminated composite curved panels subjected to moist environment)
- 12.50-13.05: **Uttam Kumar Kar**, GGV, Bilaspur, Chhattisgarh, India.
(OP-58: Design and Analysis of Femoral Locking Plate under Different Loading Conditions).

13.05-13.20: **Nitesh Talekar**, Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur, PIN - 440010, India
(OP-84: Modal Analysis of Four Layered Composite Cantilever Beam With Lay-Up Sequence and Length-to-Thickness Ratio).

13.30-14.30: LUNCH

10.50- 13.05: CONTRIBUTARY ORAL SESSION IN THE HONOUR OF PROF. SABU THOMAS, MAHATMA GANDHI UNIVERSITY, KOTTAYAM, KERALA.

LT-3; Session F: Composites; Properties and Applications

Session Chair: Prof. Ranjit Bauri, Indian Institute of Technology Madras.

Co-Chair: Dr. C. Muralidhar, Defence Research & Development Laboratory, Kanchanbagh, Hyderabad, India

10.50-11.10: **Sandra Lepak-kuc**, Warsaw University of Technology, Boboli 8, 02-525 Warsaw, Poland.
(OP-49: Carbon nanotube based fibre for smart clothing applications).

11.10-11.25: **Sagar B Patil**, Tatyasaheb Kore Institute of Engg & Tech, Warananagar, Maharashtra.
(OP-19: Experimental Study on Bond Strength of GFRP Bars)

11.30-11.35: **Tea/Coffee**

11.35 – 11.50: **Ranjit Bauri**, Department of Metallurgical and Materials Engineering, Indian Institute of Technology Madras, Chennai 600036
(OP-35: Processing Ti/TiB composites by spark plasma sintering: Effect of ball milling on the microstructure and properties)

11.50.-12.05: **Balakrishna Adhikari**, Department of Aerospace Engineering, IIT Kharagpur, India.
(OP-28: Buckling analysis laminated FG-CNT plates under parabolic in-plane edge compression).

12.05-12.20: **Jayendra Bazaru**, Department of Mechanical Engineering, Bapatla Engineering college, Autonomous, Bapatla -522101, Andhra Pradesh..
(OP-46: Mechanical Characterization of Stir Cast Al-7075/ Graphite/ B₄C Reinforced Hybrid Metal Matrix Composites).

12.20-12.35: **Viswarupachari CH**, Advanced Composites Division, National Aerospace Laboratories-CSIR, Bengaluru, India.
(OP-29: Determination of Residual Compression Strength of Composite Panels containing Impact Damages: An Experimental study).

12.35-12.50: **Kalyanamanohar V**, Mechanical Engg. Department, University College of Engineering, JNTUK, Kakinada.
(OP-86: Evaluation of Mechanical Properties of AZ31-nHAP Surface Composite Fabricated by Friction Stir Processing).

12.50-13.05: **M. K. Singh**, Department of Aerospace Engineering, IIT Kanpur-208016, India.
(OP-17: Strengthening Interface of Glass/Epoxy laminate by Slender Fillers Reinforcement)

13.30-14.30: LUNCH

WEDNESDAY, February 27, 2019

SCHEDULE OF CONTRIBUTARY TECHNICAL PROGRAMME

15.00- 16.50: CONTRIBUTARY ORAL SESSION IN THE HONOUR OF PROF. ULRICH GABBERT, OTTO VON GUERICKE UNIVERSITY OF MAGDEBURG, GERMANY.

LT-2; Session G: NDE of composites

Session Chair: Dr. G. C. Mohankumar, NIT Surathkal.

Co-Chair: Dr. Belashov A.V., Ioffe Institute; 26, Polytekhnicheskaya, St.Petersburg, 194021, Russia

- 15.00-15.20: **Belashov A.V.**, Ioffe Institute; 26, Polytekhnicheskaya, St.Petersburg, 194021, Russia.
(OP-70: Investigation of nonlinear elastic properties of nanocomposites using digital holography and interferometry).
- 15.20-15.35: **Moumita Mahanty**, Department of Applied Mathematics, Indian Institute of Technology (Indian School of Mines), Dhanbad, 826004, Jharkhand, India
(OP-4: SH-wave propagation in a cylindrical piezoelectric composite under the influence of imperfect bonding)
- 15.35 – 15.50: **C. Muralidhar**, Defence Research & Development Laboratory, Kanchanbagh, Hyderabad – 500 058, India
(OP-25: 3D Computed Tomography (CT) – relevance to Aerospace Mission critical components)
- 15.50.-16.05: **Vivek Khare**, Department of Aerospace Engineering, IIT Kanpur.
(OP-53: Damage Detection in Soft Polymeric Materials: Comparative Study of Continuous and Discrete Wavelet Transforms).
- 16.05-16.20: **Gurdeep Rattu**, Department of Basic and Applied Science, National Institute of Food Technology Entrepreneurship and Management (NIFTEM) Kundli, Haryana, India.
(OP-65: Development Of Polyacrylic Acid Coated Cerium Oxide Nanoparticles Based Fluorescent Sensor For Hydrogen Peroxide).
- 16.20-16.35: **G C Mohan Kumar**, Department of Mechanical Engineering, National Institute of Technology Karnataka, Surathkal, Mangalore-575 025, India.
(OP-73: Mechanical properties of polyvinyl alcohol/hydroxyapatite hydrogel as potential artificial cartilages)
- 16.35-16.50: **Pulkit Kumar**, Department of Applied Mathematics, Indian Institute of Technology (Indian School of Mines), Dhanbad, 826004, Jharkhand, India.
(OP-6: Approximation of Love-type wave propagation in a functionally graded piezoelectric composite structure)
- 17.00-17.30: Tea/Coffee**

15.00- 16.45: CONTRIBUTARY ORAL SESSION IN THE HONOUR OF PROF. BIKRAMJIT BASU, INDIAN INSTITUTE OF SCIENCE, BANGALORE, INDIA.

LT-3; Session H: Ceramic Matrix Composites

Session Chair: Dr. Anil Kumar Upadhyay, Scientist 'F', R&DE (Engrs), DRDO, Pune.

Co-Chair: Mr. Anurag Kamal, VSSC, ISRO, Thiruvananthapuram, Kerala, India.

- 15.00-15.15: **S.K. Kashyap**, Metallurgical and Materials Engineering Department, Indian Institute of Technology, Kharagpur, West Bengal, India.
(OP-20: Effect of Ce addition on densification and properties of spark-plasma sintered ZrB₂-SiC ultra-high temperature ceramic composites).
- 15.15-15.30: **Dulal Das**, CSIR-Central Glass and Ceramic Research Institute, 196, Raja S.C.Mullick Road, Kolkata-700 032, West Bengal, India
(OP-24: Processing of Si-Mo-SiC composite by infiltration of silicon metal alloy into coir fibre derived bio-preform)
- 15.30 – 15.45: **Anurag Kamal**, Vikram Sarabhai Space Centre, Indian Space Research Organization, Thiruvananthapuram 695 022, Kerala, India
(OP-30: A comparative study of the thermo-mechanical properties of C/PyC/SiC, C/BN/SiC and C/C-SiC composites prepared by CVI)
- 15.45.-16.00: **Buragadda V Rajasekhar**, Vikram Sarabhai Space Centre, Indian Space Research Organization, Thiruvananthapuram 695 022, Kerala, India.
(OP-32: C/UHTC composites by PIP route using a resinous precursor).
- 16.00-16.15: **Vamsi Krishna Parimi**, Department of Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur, Kharagpur 721302, West Bengal, India.
(OP-41: Study of Microstructure and Properties of 2.5D C_r-SiC Composites).
- 16.15-16.30: **Shaik Mubina**, International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad, 500005 Telangana, India.
(OP-42: Influence of nanofibers on the mechanical properties of CVD coated SiC-CNF composites).
- 16.30-16.45: **Awanish Sharma**, Department of Physics, Graphic Era Deemed To Be University, Dehradun, India
(OP-90: Corrosion Resistance of Electroless Ni-P-SiC/ Ni-P-TiO₂-ZrO₂ Nano-Coatings in Paper Mill Bleach Plant).

17.00-17.30: Tea/Coffee

19.00-21.30: Cultural Program followed by Banquet in Swatantrata Bhawan, BHU, Varanasi (On Paid basis, For Indians- Rs. 1500/- and for foreign delegates:- 50 USD)

THURSDAY, February 28, 2019

9.00-9.30: Breakfast (Tea/Coffee/Cookies)

SCHEDULE OF CONTRIBUTORY TECHNICAL PROGRAMME

9.45- 10.45: CONTRIBUTORY ORAL SESSION IN THE HONOUR OF DR. SHASHI KARNA, US ARMY RESEARCH LABORATORY, USA.

LT-2; Session I: Advanced Materials

Session Chair: Dr. P. K. Sahoo, CSIR-National Aerospace Laboratories, Bangalore, India.

Co-Chair: Dr. Sravendra Rana, University of Petroleum and Energy Studies (UPES), Dehradun, India.

9.45-10.00: **Prashant Pandey**, School of Environment and Natural Resources, Doon University, Dehradun, India.
(OP-72: Effect of different pillaring agents on indoor-pollutant removal efficiency of natural clay).

10.00-10.15: **Padma Rani Verma**, Department of Chemistry, National Institute of Technology, Raipur, Chhattisgarh, India, 492010.
(OP-76: Bio-synthesis, bio-fabrication and characterization of ZnO nanoparticles from *Salvadora persica* root extract)

10.15-10.30: **Sravendra Rana**, School of Engineering, University of Petroleum and Energy Studies (UPES), Dehradun 248007, INDIA.
(OP-96: Graphene reinforced self-repairing nanocomposites).

10.30-10.45: **Saumya Shalu**, Department of Chemistry, Birla Institute of Technology Mesra, Ranchi 835215, India.
(OP-82: Sol-gel synthesis of low loss ceramics derived from Zr- substituted Ba_{0.7}Sr_{0.3}TiO₃)

10.00- 10.45: CONTRIBUTORY ORAL SESSION IN THE HONOUR OF PROF. K.E. TANNER, QUEEN MARY UNIVERSITY OF LONDON, UK.

LT-3; Session J: Composites; Electrical properties and bio-applications

Session Chair: Prof. Anchal Srivastava, Dept. of Physics, Banaras Hindu University, Varanasi, India.

Co-Chair: Dr. Pradeep Srivastava, Indian Institute of Technology (IIT) Varanasi, U.P., India.

10.00 – 10.15: **K. Thyagarajan**, Department of Physics, JNTUA College of Engineering Pulivendula, Y.S.R Kadapa district - 516390, Andhra Pradesh, India
(OP-43: Sonochemical synthesis and electron spin resonance studies of Sr₂FexMo_{2-x}O₆ (x = 0.9, 1.0, 1.1, and 1.2) Double Perovskite)

10.15.-10.30: **Indrasena Ghosh**, Department of Paper technology, IIT Roorkee, Saharanpur Campus, Saharanpur-247001.
(OP-7: Bio-based composite fillers for pulp and paper Industries).

10.30-10.45: **B N Singh**, School of Biochemical Engineering, Indian Institute of Technology BHU, Varanasi, India.
(OP-40: Development of Polyelectrolyte Complexation Based Composite Scaffold For Bone Tissue Engineering Application)

**11.00 – 12.00: VALEDICTORY FUNCTION (MAHAMANA HALL, Seminar Complex, Institute of Science, BHU)
Followed by distribution of participation certificate and distribution of best paper award**

**Chief Guest: Prof. Walter Krenkel, University of Bayreuth, Germany.
Guest of Honour: Prof. Mamoru Senna, Keio University, Japan.**

12.00 – 12.30: High Tea

ALL CHAIR AND CO-CHAIR MEMBERS ARE REQUESTED TO PREPARE MARKING TO SELECT THE BEST ORAL PAPER AWARDS

**TECHNICAL PROGRAMME OF CONTRIBUTORY PAPERS PRESENTATION IN POSTER SESSION
AT THE GALLERY OF SEMINAR COMPLEX, Institute of Science (BHU) Varanasi.**

TUESDAY, 26th FEBRUARY 2019: 13.00 – 16.00:

Judges: Prof. Mamoru Senna, Keio University, Japan.
Prof. Alessandro Pegoretti, University of Trento, Italy
Prof. P. Bharadwaj, Indian Institute of Technology (BHU) Varanasi, India
Prof. R. K. Mandal, Indian Institute of Technology (BHU) Varanasi, India
Dr. Jeffery Baur, AFRL, USA
Prof. Anchal Srivastava, Banaras Hindu University, Varanasi, India.

- PP-1: Piezoelectric Poly(vinylidene fluoride) - Nanoclay Hybrid and its Application as Energy Harvester**
(Anupama Gaur and Pralay Maiti
School of Materials Science and Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi, 221005, India)
- PP-4: Dependence of dry sliding wear behavior on sintering temperature for AS64 magnesium matrix composites**
(Prem Prakash Seth, Devendra Kumar, Om Prakash
Department of Ceramic Engineering, Indian Institute of Technology (BHU) Varanasi-221005)
- PP-5: Experimental investigation on bullet impact properties of kevlar reinforced composites**
(P. Siva Kota Reddy*, K. Prudhvi*, Dr.P.S. Venkatnarayan¹
*Under Graduate students, School of Aeronautical sciences, Hindustan University, Chennai., ¹ Professor, School of Aeronautical sciences, Hindustan University, Chennai).
- PP- 6: Nonlinear Vibration Control of Functionally Graded Shell using Functionally Graded Piezoelectric Material**
(Saurav Sharma¹, Abhishek Banagunde², Rajeev Kumar³, Mohammad Talha⁴
School of Engineering, Indian Institute of Technology Mandi, India 175005)
- PP-10: Impact Response of Laminated Parabolic Membrane Structures for Space Applications.**
(Hemant Sharma¹, S H Upadhyay²
^{1,2}Smart Materials and Structures Laboratory, Department of Mechanical & Industrial Engineering, Indian Institute of Technology, Roorkee-247667, India.
- PP-12: Effect of Variation in Ply Orientation and Number of Layers on natural frequency of vibration in Composite Material**
(Swapnil D. Shinde, S.H. Upadhyay, Parth K. Kamaliya
Department of Mechanical & Industrial Engineering, Indian Institute of Technology Roorkee, India.)
- PP-13: Weldability of thermoplastic composite materials via friction stir welding- A current review**
(Virendra Pratap Singh^a, Surendra Kumar Patel^a, Nitin Kumar^b, Kuriachen B^{a**}
^aDepartment of Mechanical Engineering, National Institute of Technology Mizoram, Aizawl-796012, Mizoram, India,
^bDepartment of Physics, National Institute of Technology Mizoram, Aizawl-796012, Mizoram, India)
- PP-16: Interaction of light with colloidal suspension of plasmonic nanoparticles**
(Avesh Kumar^{1, 2}, R. P. Singh², T. Mohanty³ and A. Taneja¹
¹Department of Chemistry, Dr. B. R. Ambedkar University, Agra, India
²Physical Research Laboratory, Navrangpura, Ahmedabad, India
³School of Physical Sciences, Jawaharlal Nehru University, New Delhi, India)
- PP-23: Effect of Biocementation using Soil Bacteria to Augment the Mechanical Properties of Cementitious Materials**
(Anuja U. Charpe^{1*}, M. V. Latkar², T. Chakrabarti³
^{1*}Research Scholar, Civil Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur – 440010, Maharashtra, India, ²Associate Professor, Civil Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur – 440010, Maharashtra, India, ³Former Chair Professor, MPCB, Civil Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur – 440010, Maharashtra, India)

- PP-29: Synthesis and Characterization of Magnesium Metal Matrix Composite**
(Asgar Shakil, Sandip Kumar Singh, B. Rajak, U. S. Rao*, R. K. Gautam
Mechanical Engineering Department, Indian Institute of Technology (BHU), Varanasi – 221005, India)
- PP-30: Characterization Study of Magnetorheologic Polymer Gel**
(Praveen Kumar and R. Sujithra
Department of Applied Mechanics Motilal Nehru National Institute of Technology, Allahabad)
- PP-31: Stochastic Flexural Analysis of Geometrically Imperfect FGM Plates Resting on Elastic Foundation**
(Mohammed Shakir^{1,†}, Mohammad Talha²,
^{1,†}Indian Institute of Technology Mandi, India, ² Indian Institute of Technology Mandi, India)
- PP-35: Evolution of Physical and Mechanical Properties of Al5083/B4C Composites fabricated through Stir Casting**
(Gurpreet Singh a 1 , Neeraj Sharma b
^aAIT, Amity University, Noida, U.P. 201313, India, ^bDepartment of Mechanical Engineering, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana – 133207, India)
- PP-38: Comparison study of mechanical properties of sisal- jute and jute- banana hybrid composite**
(¹Arpita Samal, ²Shashwati Soumya Pradhan
Centre for Advanced Post Graduate Studies, BPUT, Rourkela, India)
- PP- 45: NDE of glass fiber reinforced composite structures using single sided solid state proton NMR**
(S K Sahoo^{1,2}, K Srinivas², R N Rao¹ and M K Buragohain²
¹National Institute of Technology (NIT), Warangal-506 004, ²Advanced Systems Laboratory (ASL), Kanchanbagh PO, Hyderabad-500 058)
- PP-46: Analysis of process parameters for composites manufacturing using vacuum infusion process**
(Tushar Gajjar¹, Dhaval B. Shah^{2*}, S. J. Joshi² and K. M. Patel²
¹Mechanical Engineering Department, Sardar Vallabhbhai National Institute of Technology, Surat – 395 007, India.
²Mechanical Engineering Department, Institute of Technology, Nirma University, Ahmedabad – 382 481, India)
- PP- 49: Effects of sandstone slurry, the dosage of superplasticizer and water/binder ratio on the fresh properties and compressive strength of self-compacting concrete**
(Prarthita Basu, Ramesh Chandra Gupta, Vinay Agarwal
Civil Engineering Department, Malaviya National Institute of Technology, Jaipur, India)
- PP- 50: Analysis of tribological characteristics of Cu-SiCp Composite**
(Rabinarayan Sethi, Rajesh Kumar Ojha
Department of Mechanical Engineering, IGIT, Sarang, Dhenkanal, Odisha, India-759146)
- PP- 57: Comparative Evaluation of the Erosion Behavior of Microwave-Derived and Thermal Sprayed Coatings**
(Abhishek Babu^a, H S Arora^a, Sailesh N. Behera^b, Mukesh Sharma^c, H S Grewal^{a*}
^aSurface Science and Tribology Lab, Department of Mechanical Engineering, Shiv Nadar University, Gautam Budh Nagar, India, ^bDepartment of Civil Engineering, Shiv Nadar University, Gautam Budh Nagar, India, ^cDepartment of Civil Engineering, Indian Institute of Technology Kanpur, India)
- PP- 59: Machining of Aluminium Metal Matrix Composite: A Review**
(Ajay .R. Bhardwaj¹ , Dr. A M. Vaidya²
¹Research Scholar North Maharashtra University, Jalgaon (M.S), India, ²Principal Gangamai College of Engineering, Nagaon, Dhule (M.S), India)
- PP-64: A novel method to enhance thermal conductivity of laser clad copper**
(Viney Ghai, Gurpreet Singh, Surinder Singh, Prabhat Agnihotri and Harpreet Singh
Indian Institute of Technology, Ropar)
- PP-65: Multi objective optimal scheme for machinability aspects of AA606-SiCp metal matrix composite during end milling-a hybrid approach**
(B.Ravi Sankar* and P.Umamaheswarrao
Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, A.P. PIN-522102, India)

PP-67: Impact response of Cenosphere/Epoxy Syntactic Foams

(Rohit Chougule¹, Sushant Ghadge¹, Rushikesh Bhandwale¹, Ajit Gavade¹, Nikhil Kumbhar¹, Kiran Shahapurkar^{1,2}, Mrityunjay Doddamani²)

¹Department of Mechanical Engineering, Sanjeevan Engineering & Technology Institute, Panhala, Kolhapur, Maharashtra, 416201, INDIA, ²Advanced Manufacturing Laboratory, Department of Mechanical Engineering, National Institute of Technology Karnataka, Surathkal, 575025, INDIA)

PP-69: Effect of Fibre Orientation and Mechanical Properties of Hardwika Binata and Bamboo Fibre Reinforced Epoxy Composites

(H. Raghavendra Rao¹, P. Venkateshwar Reddy²)

^{1,2}Department of Mech. Engg., GPREC, Kurnool, A.P., INDIA – 518007)

PP-70: Experimental Investigations on Al₂O₃ and Bottom Ash Reinforced with Aluminium Metal Matrix Composites for Structural Applications

(Shamshuddin, Shaik Sameer Basha, Ajay B, G Raghavendra Setty, Dr. Raghavendra Joshi)

Dept. of Mechanical Engineering, Ballari Institute of Technology & Management, Bellary, Karnataka, India.)

PP-71: Buckling Analysis of Thin Cylindrical Panel with Oval Cutout

(Mohammed A.K., M. Naushad Alam, Raisuddin Ansari)

Department of Mechanical Engineering, Z.H.C.E.T, AMU Aligarh. U.P 202002(India))

WEDNESDAY, 27th FEBRUARY 2019: 13.00 – 16.00:

Judges: Prof. R. N. Singh, Okhalama University, USA
Dr. Shashi P. Karna, US Army Research Laboratory, USA
Prof. P. Bharadwaj, Indian Institute of Technology (BHU) Varanasi, India
Prof. R. K. Mandal, Indian Institute of Technology (BHU) Varanasi, India
Dr. Jeffery Baur, AFRL, USA
Prof. Anchal Srivastava, Banaras Hindu University, Varanasi, India.

PP- 72: Effect of Point Angle in Twist Drill Bit on Delamination in CFRP

(Tejas N.^a, Rahul M. Cadambi^a)

^a Ramaiah University of Applied Sciences, #470-P, Peenya Industrial Area, 4th Phase, Peenya, Bangalore – 560 058)

PP-73: Free Vibration Analysis of Generally Layered Composite Beam with various Lay-Up and Boundary Conditions

(Nitesh Talekar, Mangesh Kotambkar)

Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur - 440010, India)

PP- 74: Development of Cost Effective Out-of-Autoclave Technology – Vacuum Infusion Process with Tailored Fiber Volume Fraction

(Sunilpete M. A., Rahul M. Cadambi)

Ramaiah University of Applied Sciences, #470-P, Peenya Industrial Area, 4th Phase, Peenya, Bangalore – 560 058)

PP-83: Micromechanics Based Models for the Effective Evaluation of Elastic Properties of Reinforced Polymer Matrix Composites

(D.N.Pawar¹, V.S.Kathavate², A.S.Adkine³)

¹Assistant Engineer, Menon Pistons Ltd., Kolhapur- 416122 (MS), India, ²Indian Institute of Technology, Indore- 453552 (MP), India, ³Assistant Professor, Shreeyash College of Engineering and Technology, Aurangabad- 431009 (MS), India)

PP- 86: Investigation of Crack Repair in Orthotropic Composite by Piezoelectric Patching

(Ritesh Kumar, Akhilendra Singh, Mayank Tiwari)

Department of Mechanical Engineering, IIT Patna, Bihar, 801106)

PP-87: Development of nanostructured Zirconia modified 1393/ hydroxyapatite biocomposite: Mechanical and biological properties evaluation

(Sushma Yadav*, Preetam Singh, Ram Pyare)

Department of Ceramic Engineering, IIT (BHU), Varanasi, India)

PP-91: Fabrication and Characterization of Graphene Reinforced styrene-butadiene-styrene (SBS) Polymer Nanocomposite

(Pranta Dasgupta^{1*}, Animesh Talapatra², Shankar Kumar³)

^{1*}Student, Dept of Automobile Engineering, MCKVIE, Liluah, Howrah, PIN-711204, West Bengal, ²Research Scholar, Department of Mechanical Engineering, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, West Bengal, India-711103, ³Faculty, Dept of Automobile Engineering, University Polytechnic BIT Mesra, Ranchi- 835215, Jharkhand)

PP-93: Mechanical Characterization of Red mud baggases ash Metal matrix composite

(Mr Rishi Dewangan, Arjun Raj, Pushkar Saha,

Amity University Rajasthan)

PP-94: Synthesis of Titania-Bentonite Nanocomposite for Rapid Detection of Aflatoxin in Peanut by Colorimetric Sensor

(Nishtha Khansili, Gurdeep Rattu and Prayaga Murali Krishna)

Department of Basic and Applied Science, National Institute of Food Technology Entrepreneurship and Management (NIFTEM) Kundli, Haryana, India)

PP-98: Triboelectric Tile for Energy Harvesting

(Satish Kumar, Rajeev Kumar, S. C. Jain)

School of Engineering, Indian Institute of Technology Mandi, India 175005)

- PP- 99: SEM-EDX and FTIR characterization of sisal fibres**
(Parul Sahu¹, M. K. Gupta
Department of Mechanical Engineering, Motilal Nehru National Institute of Technology Allahabad, Allahabad-211004, India)
- PP- 100: Buckling and Bending Analysis of Inter-ply Hybrid Composite Plate**
(Sameer Ahmad, Leeladhar Rajput
Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur (495001), Chhattisgarh, India)
- PP-101: Optimization of Tribological Behavior of CFRP Composites under dry sliding condition using Taguchi Method**
(Prabhat Kumar Prajapati, Santosh Kumar, K. K Singh
Department of Mechanical Engineering, Indian Institute of Technology (ISM) Dhanbad, Dhanbad, India)
- PP- 106: Experimental evaluation of a composite material using GFRC**
(Lovely Sabat, Shashwati Soumya Pradhan
Centre for Advanced Post Graduate Studies, BPUT, Rourkela, India)
- PP- 107: Correlation between Hardness and Tensile Strength of Cracked Aluminium Plates repaired with Composite Patches**
(Bishnupriya Dehuri, Shashwati Soumya Pradhan
Centre for Advanced Post Graduate Studies, BPUT, Rourkela, India)
- PP-108: Effect of Surface Alloying on Wear Behaviour of EN47 Steel**
(Jagseer Singh¹, Sukhpal Singh Chatha¹ & Buta Singh Sidhu²
¹Yadavindra College of Engineering, Punjabi University Guru Kashi Campus, Talwandi Sabo, Punjab, India-151302
² Maharaja Ranjit Singh State Technical University, Bathinda, Punjab, India- 151001)
- PP- 109: Microbiological Induced Calcium Carbonate Process to Enhance the Properties of Cement Mortar**
(Shekhar Saxena, A. R. Tembhurkar
Civil Engineering Department, Visvesvaraya National Institute of Technology, Nagpur, 440010, India)
- PP-110: Active Vibration Suppression of Laminated Composite Beams**
(Bhanu Prakash¹, Mohammad Amir^{1,2}, M Yaqoob Yasin¹
¹Department of Mechanical Engineering, Z. H. College of Engineering and Technology, AMU, Aligarh, 202002, India,
²School of Engineering, Indian Institute of Technology Mandi)
- PP-113: Development of a copper nanoparticles embedded Chitosan and gelatin based biocomposite scaffold for Tissue engineering application**
(Shikha Kumari, Pradeep Srivastava
School of Biochemical Engineering, IIT BHU, Varanasi)
- PP-114: A review on Buckling of Grid-stiffened Composite Panels - Application to Aircraft Fuselage**
(Amit Kumar¹, B.Dhatreyi² and R. Sujithra¹
¹MNNIT Allahabad, UP, INDIA, ²KLEF Hyderabad, TS, INDIA)
- PP-115: Structural properties of Ag-Er³⁺ doped Tungsten Tellurite Glass Ceramics**
(S.K. Mahajan and Ravi Jain
Department of Applied Physics, Samrat Ashok Technological Institute, Vidisha (M.P.) 464001, India)
- PP-116: Influence of High Energy Mechanical Milling on Dielectric and Magentoelectric Properties of 25%(Mn_{0.5}Cu_{0.5}Fe₂O₄)75%[Ca_{0.1}Ba_{0.9}Zr_{0.1}Ti_{0.9}O₃] Multiferroic Composite**
(Ashish R. Tanna^{1*} and Hiren H. Joshi²
¹School of Science, RK University, Rajkot, 360020, India
²Department of Physics, Saurashtra University, Rajkot, 360005, India)
- PP-119: Nano bead Zn_{0.98} Cu_{0.02} O thin film development and application in methane detection**
(Brij Bansh Nath Anchal, Preetam Singh, Ram Pyare
Department of Ceramic Engineering, Indian Institute of Technology (BHU), Varansai-221005, India)
- PP-121: A review on various aspects of Kevlar composites used in ballistic applications**
(Susmita Naik, R. D. Dandagwhal, Praveen Kumar Loharkar
Department of Mechanical Engineering, MPSTME, NMIMS, Shirpur-425405, India.

PP-122: Prediction of effective properties for composites using Micromechanics Method

(S.S. Godara¹, PK Mahato², Prasun Jana³)

¹Research Scholar, Department of Mechanical Engineering, IIT(ISM) Dhanbad, ²Assistant Professor, Department of Mechanical Engineering, IIT(ISM) Dhanbad, ³Assistant Professor, Department of Aerospace Engineering, IIT Kharagpur)

PP-124: Air pollution made by burning of FRP composites by finding the CO and CO₂ emissions with sensors

(Akula Komuraiah)

Department of Mechanical Engineering, KITS(S), Karimnagar, Telangana, India)

ALL JUDGES ARE REQUESTED TO PREPARE MARKING TO SELECT THE BEST POSTER AWARDS

THURSDAY, February 28, 2019

**11.00 – 12.00: VALEDICTORY FUNCTION (MAHAMANA HALL, Seminar Complex, Institute of Science, BHU)
Followed by distribution of participation certificate and distribution of best paper award**

Chief Guest: Prof. Walter Krenkel, University of Bayreuth, Germany.

Guest of Honour: Prof. Mamoru Senna, Keio University, Japan.