

Journal Publications (2021)

Aerodynamics Faculty

Prof. Alakesh Chandra Mandal

1. Gopalakrishnan S and Alakesh Chandra Mandel “*Transient growth in a flat plate boundary layer under a stream with uniform shear*” *Physics of Fluids* (2021), Vol 33,114101 <https://doi.org/10.1063/5.0063983>

Prof. Debopam Das

1. A Nayak, D Das. “*Experimental and numerical investigation of flow instability in a transient pipe flow*”. *Journal of Fluid Mechanics*, 2021
2. KK Bharadwaj, D Das. “*Influence of Coflow on Buoyant Plume Puffing*”. *Journal of Fluids Engineering*, 2021
3. S. Poudel, L. Chandrala, D. Das, A. De, “*Characteristics of shock tube generated compressible vortex rings at very high shock Mach numbers*”, *Physics of Fluids*, 2021, 33, 096105. (Featured Article)

Prof. Kamal Poddar

1. Dhiraj Kumar, Ashwini N Arekar, Kamal Poddar “*The dynamics of flow-induced flutter of a thin flexible sheet*” *Physics of Fluids*, 2021, 33, 034131.
2. S Siva Viknesh, Kamal Poddar “*Active control of separated flow on a symmetric airfoil by pitching oscillation*” *Physics of Fluids*, 2021, 33, 087115.
3. Shreya Sharma, Praneeta B Sachan, Navneet Kumar, Rahul Ranjan, Sanjay Kumar, Kamal Poddar “*Vortex breakdown control using varying near axis swirl*” *Physics of Fluids*, 2021, 33, 093606.
4. Puja Sunil, Sanjay Kumar, Kamal Poddar “*Flow past a rotationally oscillating cylinder with an attached flexible filament*” *Journal of Fluid Mechanics*, 2022, volume 930.

Prof. Arun Kumar Perumal

1. Arun Kumar Perumal and E. Rathakrishnan “*Scaling law for shock-cell length and its correlation with shock-associated noise of circular and elliptic supersonic free jets*”, *Physics of Fluids* (2021), Vol. 33, No. 9, 096103.
2. Perumal Arun Kumar and Zhou Y, “*Axisymmetric jet manipulation using multiple unsteady minijets*”, *Physics of Fluids* (2021), Vol. 33, No. 6, 065124 (Selected as Featured Article).
3. Arun Kumar Perumal and E. Rathakrishnan “*Scaling law for supersonic core length in circular and elliptic free jets*”, *Physics of Fluids* (2021), Vol. 33, No. 5, 051707 (Letters).
4. Saif Akram, Arun Kumar Perumal and E. Rathakrishnan “*Effect of Tab Parameters on the Near-Field Mixing Characteristics of a Mach 1.5 Elliptic Jet*”, *Physics of Fluids* (2021), Vol. 33, No. 3, 036114

Prof. Mohammed Ibrahim Sugarno

1. **Mohammed Ibrahim. S**, R. Sriram, S. K. Karthick and Jagadeesh. G, “*Unsteady pulsating flowfield over spiked axisymmetric forebody at hypersonic flows*”, Physics of Fluids, 34, 016104, 2022.
2. V. S, Sowmya R. Nanda, **Mohammed Ibrahim. S**, “*On Spherical Shock Wave Focusing in Air – a Computational Study*”, European Journal of Mechanics – B Fluids, Vol. 91 pp27 37, 2022.
3. Sowmya Ranjan Nanda, S. K. Karthick, Talluri Vamsi Krishna, Ashok De and **Mohammed Ibrahim. S**, “*On the unsteady dynamics of partially shrouded compressible jets*” Experiments in Fluids, 62, 221, 2021.

Prof. Rakesh Kumar Mathpal

1. Appar, A., Kumar, R., “*Effect of Thermal Ablation at the Fluid-Solid Interface of a Hypersonic Reentry Vehicle in Rarefied Flow Regime*”, International Journal of Computational Fluid Dynamics, (2021) doi: 10.1080/10618562.2021.2017900
2. Kumar, R., Singh, R., Chinnappan, A.K., Appar, A., “*Orbital Decay Simulation of a Spacecraft due to Aerodynamic Drag in the Low Earth Orbit*”, The Aeronautical Journal, (2021) doi: 10.1017/aer.2021.83.
3. Chinnappan, A.K., Kumar, R., Arghode, V.K., “*Modeling of Dusty Gas Flows due to Plume Impingement on a Lunar Surface*”, Physics of Fluids, 33, 053307 (2021).
4. Chinnappan, A.K., Kumar, R., Arghode, V.K., Kammara, K.K., Levin, D.A., “*Correlations for Aerodynamic Coefficients for Prolate Spheroids in the Free Molecular Regime*”, Computers and Fluids, 223, 104934 (2021).
5. Faheem, M., Khan, A., Kumar, R, Khan, S.A., Asrar, W., Sapardi, M.A.M, “*Experimental Investigation of the Effect of Cross Wire on the Flow Field of Elliptic Jet*”, International Journal of Heat and Fluid Flow, Vol. 90, 108834 (2021).
6. Khan, A., Bhesania, A.S., Kumar, R., “*An Experimental Study on the Control of Plug Nozzle Jets*”, Shock Waves, 31, 31 (2021).
7. Faheem, M., Khan A., Kumar, R., Khan, S.A., Asrar, W, “*Experimental Study on the Mean Flow Characteristics of a Supersonic Multiple Jet Configuration*”, Aerospace Science and Technology, 108, 106377 (2021).

Prof. Sanjay Mittal

1. Sanjay Mittal, Jawahar Sivabharathy Samuthira Pandi, Mainak Hore “*Cellular vortex shedding from a cylinder at low Reynolds number*” Journal of Fluid Mechanics, 915, 2021
2. Mohd Furquan, Sanjay Mittal “*Multiple lock-ins in vortex-induced vibration of a filament*” Journal of Fluid Mechanics, 916, 2021.
3. Mohd Furquan, Sanjay Mittal “*Flow-induced vibration of filaments attached to two side-by-side cylinders*” Physics of Fluids, 33, 063609, 2021.
4. Gaurav Chopra, Sanjay Mittal “*Secondary vortex, laminar separation bubble and vortex shedding in flow past a low aspect ratio circular cylinder*” Journal of Fluid Mechanics, 930, 2022
5. Durgesh Vikram, Sanjay Mittal, Partha Chakroborty “*Stabilized finite element computations with a two-dimensional continuum model for disorderly traffic flow*” Computers & Fluids, 232, 105205, 2022.

6. Gaurav Chopra, Sanjay Mittal “ *The effect of trip wire on transition of boundary layer on a cylinder*” *Physics of Fluids*, 34, 054103, 2022.

Prof. Sanjay Kumar

1. Shreya Sharma, Praneeta B. Sachan, Navneet Kumar, Rahul Ranjan, Sanjay Kumar and Kamal Poddar, “*Vortex breakdown control using near axis swirl*” *Physics of Fluids*, vol. 33, 093606 (2021) (Editor’s Pick)
2. Sanjay kumar, Rong Fung Huang, Chin Min Hsu “*Flow and mixing characteristics of dual parallel plane jets subject to acoustic excitation*” *European Journal of Mechanics*, Vol:85, 2021.
3. Sanjay kumar, Rong Fung Huang, Chin Min Hsu “*Effect of pulsation intensity on the flow and dispersion of pulsed dual plane jets*” *International Journal of Mechanical Sciences*, Vol:193,2021.
4. Khan A, Hankare p, Verma S, Jaiswal Y, Kumar R, Kumar S “*Detachment of strong shocks in confined granular flows*” *Journal of Fluid Mechanics*, Vol:935, 2022.
5. Mathews A.K, Khan A, Sharma B, Kumar S, Kumar R “*A numerical investigation of granular shock waves over a circular cylinder using the discrete element method*” *Journal of Fluid Mechanics*, Vol:936, 2022.
6. Kumar M.N, Kumar S.M, Vijaykumar G.C, Kadirgama K, Samykano M, Venkatesh K, Murlidhara H.B. “*Effect of Flow Field Geometry on Hydrodynamics of Flow in Redox Flow Battery*” *Energy Engineering: Journal of the Association of Energy Engineering*, Vol:119, 2022.
7. Sunil P, Kumar S, Poddar K “*Flow past a rotationally oscillating cylinder with an attached flexible filament*” *Journal of fluid mechanics*, Vol:930, 2022.

Flight Mechanics & Control Faculty

Prof. Dipak Kumar Giri

1. Jitu Sanwale, Salahudden Salahudden, Dipak Kumar Giri “*Neuro-Adaptive fault-Tolerant sliding mode controller for spacecraft attitude stabilization*” *Journal of Spacecraft and Rockets*, AIAA, Vol:58, 2021.
2. Himanshu Prabhat, Bijoy K Mukherjee, Dipak Kumar Giri, Manoranjan Sinha “*fault-Tolerant sliding mode satellite attitude stabilization using magneto-Coulombic torquers*” *Aerospace Science and Technology*, 107316, 2022.

Prof. Mangal Kothari

1. Ramdas Gadekar, Abhishek, and **Mangal Kothari**. “*Systematic Design Methodology for Development and Flight Testing of Fuel Engine Powered Quadrotor Unmanned Aerial System for Industrial Applications*”. **Mechatronics**, Elsevier, 2021.
2. Kuldeep Dhiman, **Mangal Kothari**, and Abhishek. “*Stabilization, Control, and Transportation of under Slung Load with Single and Dual Lift Helicopter Systems.*” **ASME Journal of Dynamic Systems, Measurement and Control**, 2021.
3. Kuldeep Dhiman, Abhishek, and **Mangal Kothari**. “*Flight Dynamics and Control of an Unmanned Helicopter with Underslung Double Pendulum.*” *AIAA Journal of Aircraft*, 2021.

4. Nihal Dalwadi, Dipankar Deb, **Mangal Kothari**, Stepan Ozana. *"Disturbance Observer-based Backstepping Control of Tail-Sitter UAVs"*. Actuators (IF: 1.957), MDPI, 2021
5. Akhil B Krishna, Arijit Sen, and **Mangal Kothari**. *"Super Twisting Algorithm for Robust Geometric Control of a Helicopter"*. **Journal of Intelligent & Robotic Systems**, (IF: 1.512), Springer, 2021, doi: 10.1007/s10846-021-01366-6.

Prof. Subrahmanyam Saderla

1. N Kumar, S Saderla, Y Kim *"System identification of cropped delta UAVs from flight test method using swarm-optimisation-based estimation"* The Aeronautical Journal, 2022.

Propulsion Faculty

Prof. Abhijit Kushari

1. R Arora, RH Sundararaj, A Kushari, *"An Iterative Approach towards Single-stage Axial Fan Design using Off Design Prediction"*. Defence Science Journal 71 (5)
2. RH Sundararaj, TC Sekar, R Arora, A Kushari. *"Effect of nozzle exit area on the performance of a turbojet engine"*. Aerospace Science and Technology 116, 106844
3. A Dubey, P Nema, A Kushari. *"Investigation of Reverse Flow Slinger Combustor With Jet A-1 and Methanol"*. Journal of Engineering for Gas Turbines and Power 143 (9), 091010
4. T Sikroria, A Kushari. *"Effect of Cross-Flow Swirl on the Trajectory of Spray in an Annular Passage"*. Journal of Engineering for Gas Turbines and Power 143 (5), 051017
5. T Chandra Sekar, K Jaiswal, R Arora, RH Sundararaj, A Kushari. *"Nozzle Performance Maps for Fluidic Thrust Vectoring"*. Journal of Propulsion and Power 37 (2), 314-325
6. T Chandra Sekar, RH Sundararaj, R Arora, A Kushari *"Performance of a turbojet engine with fluidic thrust vectoring"* The Aeronautical Journal, 1-17, 2022.

Prof. Ashoke De

1. M. Verma, A. Mishra, A. De, *"Flow Characteristics of Elastically Mounted slit cylinder at sub-critical Reynolds Number"*, Physics of Fluids, 2021, 33, 123612.
2. S. Poudel, L. Chandrala, D. Das, A. De, *"Characteristics of shock tube generated compressible vortex rings at very high shock Mach numbers"*, Physics of Fluids, 2021, 33, 096105. (Featured Article)
3. S. R. Nanda, S. K. Karthick, T. V. Krishna, A. De, M. S. Ibrahim, *"On the unsteady dynamics of partially shrouded compressible jets"*, Experiments in Fluids, 2021, 62, 221.
4. G. Kumar, A. De, *"Modes of unsteadiness in shock wave and separation region interaction in hypersonic flow over a double wedge geometry"*, Physics of Fluids, 2021, 33, 076107.
5. Bhattacharya, J. Ghosh, M. B. Chowdhuri, A. De, *"Generalization of the Stability Condition for the Semi-Implicit Formulation of the Radial Impurity Transport Equation in Tokamak Plasma in Terms of the Magnetic Flux Surface Coordinate"*, Journal of Fusion Energy, 2021, 40, 20.
6. Mishra, A. De, *"Suppression of vortex shedding using a slit through the circular cylinder at low Reynolds number"*, European Journal of Mechanics/B Fluids, 2021, 89, 349-366.
7. N. Arya, A. De, *"Effect of vortex and entropy sources in sound generation for compressible cavity flow"*, Physics of Fluids, 2021, 33, 046107.

8. G. Kumar, A. De, "Role of corner flow separation in unsteady dynamics of hypersonic flow over a double wedge geometry", *Physics of Fluids*, 2021, 33, 036109.
9. S. Priyadarshini, M. K. Das, A. De, R. Sinha, "Numerical Investigation of Coaxial GCH₄/LOx Combustion at Supercritical Pressures", *Combustion Science and Technology*, 2021, 193(11), 1973-1997.
10. M. Jithin, M. K. Das, A. De, "Phase Field Lattice Boltzmann Simulations of Water Droplet Transport in a Proton Exchange Membrane Fuel Cell Flow Channel", *International Journal of Energy for a Clean Environment*, 2021, 22(23), 43-76.

Prof. D.P. Mishra

1. D.P. Mishra, M.Sankarganesh " Numerical analysis of high temperature gas flow through conical micronozzle" *International Journal of Turbo & Jet-Engines*, 2021.
2. Vishnu Hariharan, D.P.Mishra " Dynamic flame stability diagnosis of inverse jet flame using CH* Chemiluminescence" *Fuel*, Vol:285, 2021.
3. Vishnu Hariharan, D.P.Mishra " Characterization of a novel Elliptical Air-port inverse jet flame" *Combustion science and technology*, 2021.

Prof. Ajay Vikram Singh

1. Singh, A., & Singh, A. V., "Burning Behavior of Mixed-Convection Wind-Driven Flames Under Varying Freestream Conditions", *Fire Safety Journal*, 2021 (DOI:10.1016/j.firesaf.2021.103320)
2. Kumar, D. S., Ivin, K., & Singh, A. V., "Sensitizing gaseous detonations for hydrogen/ethylene-air mixtures using ozone and H₂O₂ as dopants for application in rotating detonation engines", *Proceedings of the Combustion Institute*, 2020 (DOI:10.1016/j.proci.2020.08.061).
3. D Santosh Kumar, Ajay V Singh " Inhibition of hydrogen-oxygen/air gaseous detonation using CF₃I, H₂O and CO₂" *Fire Safety Journal*, 124, 2021.

Prof. Rajesh Ranjan

1. **R Ranjan**, S Unnikrishnan, J.-Ch. Robinet, D Gaitonde, "Global transition dynamics of flow in a lid-driven cubical cavity", **Theoretical & Computational Fluid Dynamics**, 2021. (DOI: 10.1007/s00162-021-00565-z)
2. Q Liu, DV Gaitonde, **R Ranjan**. *Global stability analysis of flow behind an upswept aftbody*. **AIAA Journal**, 2021
3. **R Ranjan**, A Sharma, MK Verma. *Characterization of the Second Wave of COVID-19 in India*. **Current Science**, 2021
4. P Doshi, **R Ranjan**, DV Gaitonde, *Global and Local Modal Characteristics of Supersonic Open Cavity Flows*. **Physics of Fluids** (Featured Article), 2022

Prof. Sathesh Mariappan

1. Gurpreet Singh, Sathesh Mariappan " Experimental investigation on the route to vortex-acoustic lock-in phenomenon in bluff body syabilized combustor" *Combustion Science and Technology*

2. Britto, A. and Mariappan, S. “Lock-in phenomenon of vortex shedding in flows excited with two commensurate frequencies: a theoretical investigation pertaining to combustion instability”. *Journal of Fluid Mechanics*, 925, 2021, doi:10.1017/jfm.2021.624
3. Sathesh Mariappan “Stochastic dynamics of vortex-acoustic lock-in: stochastic bifurcation and resonance” *Journal of Fluid Mechanics*, 941, 2022.

Prof. Vaibhav Arghode

1. Sharma, D., Mahapatra, S., Garnayak, S., Arghode, V. K., Dash, S. K., Reddy, V. M., “Development of Reduced Chemical Kinetic Mechanism for Combustion of H₂/CO/ C₁-C₄ Hydrocarbons”, *Energy and Fuels*, vol. 35, p 718-742, 2021.
2. Ahmad, K., Arghode, V. K., “Experimental Investigation of a Jet-A1 Fuelled Peripheral Vortex Reverse Flow Combustor”, *Thermal Science and Engineering Progress*, vol. 21, p 100754, 2021.
3. Vaibhav Kumar Arghode “Investigation of dual color beam scanning (DCBS) PIV system” *Journal of Flow Visualization and Image Processing*, 28, 2021.
4. Varun Vidiyala, Vaibhav Kumar Arghode “Simplified model for directional delivery of air through louvers used in Air-Condition system” *Journal of The Institution of Engineers (India): Series C*, 102, 427-437, 2021.
5. Arun K Chinnappan, Rakesh Kumar, Vaibhav K Arghode “Modeling of dusty gas flows due to plume impingement on a lunar surface” *Physics of Fluids*, 33, 2021.
6. Arun K Chinnappan, Rakesh Kumar, Vaibhav K Arghode, Kishore K Kammara, Deborah A Levin “Correlations for aerodynamic coefficients for prolate spheroids in the free molecular regime” *Computers & Fluids*, 223, 2021.
7. Abhishek S Bhesania, Kishore K Kammara, Rakesh Kumar, Vaibhav K Arghode “Extraction of thermal properties of organic ablative materials using molecular dynamics simulation” *Journal of Thermophysics and Heat Transfer*, 1-12, 2022.
8. Shreshtha K Gupta, Rahul Palulli, Mohsen Talei, Robert L Gordon, Vaibhav K Arghode “CO modelling of premixed head-on quenching flame in the context of large-eddy simulation” *International Journal of Heat and Fluid Flow*, 93, 108895, 2022.
9. Vaibhav Kumar Arghode “Investigation of Dual color angular beam scanning (DCABS) PIV system” *Optics and Lasers in Engineering*, 151, 106916, 2022.
10. Abhishek S Bhesania, Rakesh Kumar, Vaibhav K Arghode “Ablative thermal response for two-dimensional Axisymmetric Problems” *Journal of Thermophysics and Heat Transfer*, 36, 377-388, 2022.

Structures, Structural Dynamics & Aeroelasticity Faculty

Prof. Abhishek

1. Ramdas, Abhishek and Kothari, M., “Performance Based Systematic Design Methodology for Development and Flight Testing of Fuel Engine Powered Quadrotor Unmanned Aerial System for Industrial Applications,” *Mechatronics*, early edition 2022.

2. Dhiman, K. K., Kothari, M. and Abhishek, "Autonomous Control and Transportation of Underslung Load with Single and Dual Lift Helicopter Systems", ASME Journal of Dynamic System, Measurements and Control, Vol. 144, No. 4, Jan 2022, doi.: 10.1115/1.4053186.
3. Dhiman, K. K., Abhishek and Kothari, M., "Flight Dynamics and Control of an Unmanned Helicopter with Underslung Double Pendulum," Journal of Aircraft, Vol. 59, No. 1, Jan 2022, doi.: 10.2514/1.C036390.
4. Raj, N., Banavar, R. N., Abhishek, and Kothari, M., "Robust Attitude Tracking Control of Aerobatic Helicopter: A Geometric Approach", in IEEE Transactions on Control Systems Technology, Vol. 29, No. 1, Jan 2021, doi.: 10.1109/TCST.2020.2969124

Prof. C S Upadhyay

1. S Koley, CS Upadhyay, PM Mohite " Study of boundary layer effects at ply interfaces of laminated composites under homogenization theory" Composite Structures, 2022, Volume 286,115217
2. Avisor Bhattacharya, Kallol Mondal, CS Upadhyay, Sandeep Sangal " Thermal diffusion coupled quantitative phase-field simulation with large undercooling" Mechanics of Materials, Volume 170, July 2022, 104298

Prof Gopal M. Kamath

1. Gopalakrishna M Kamath, Prakash D Mangalgiri, Avinash Shet "A quantitative assessment of the impact of corrosion on fatigue life of aircraft components" Engineering failure analysis, vol:133, 105973, 2022.

Prof. P.M. Mohite

1. D Kumar, T Goyal, S Kamle, PM Mohite, EM Lau "Realisation and testing of novel fully articulated bird-inspired flapping wings for efficient and agile UAVs" The Aeronautical Journal, Vol:125, 1294, 2021.
2. S Koley, CS Upadhyay, PM Mohite " Study of boundary layer effects at ply interfaces of laminated composites under homogenization theory" Composite Structures, 2022, Volume 286,115217.

Prof. Rajesh Kitey

1. Manoj k.Sing, R.Kitey "Enhancing fracture of laminated composite by chopped-fibre reinforcement" Materials Today: Proceedings, Vol:44, 2021.

Prof. Pritam Chakraborty

1. S. M. Kazim, K. Prasad, **P. Chakraborty**, "A Novel Homogenized Crystal Plasticity Model for Near α and $\alpha + \beta$ Titanium Alloys", Transactions of the Indian National Academy of Engineering, 1-7, 2021.
2. S. M. Kazim, K. Prasad, **P. Chakraborty**, "Crystal plasticity-based homogenized models of transformed β colonies in titanium alloys", Multiscale and Multidisciplinary Modeling, Experiments and Design, 1-16, 2021.
3. A. Chakraborty, V. K. Sahu, A. Das, S. Mukherjee, N. P. Gurao, **P. Chakraborty**, H. N. Bar, N. Khutia, "Study of the Effect of Two Separate Tilt Angles of Laser Scanning Lines on the

Microstructure and Mechanical Properties in Direct Metal Laser Sintered AlSi10Mg Alloy", *Metals and Materials International*, 28, 250–268, 2022.

4. S. Ghosh, J. Shen, S. Kotha, **P. Chakraborty**, "WATMUS: Wavelet Transformation-Induced Multi-time Scaling for Accelerating Fatigue Simulations at Multiple Spatial Scales", *Integrating Materials and Manufacturing Innovation*, 10, 568–587, 2021.
5. N. Khan and **P. Chakraborty**, "Thermomechanical Homogenization of Corrugated Core Sandwich Structures for Reusable Launch Vehicles", *AIAA Journal*, 59 (10), 4228-4242, 2021.
6. R. Gupta, S. M. Kazim, K. Prasad and **P. Chakraborty**, "Crystal plasticity modeling of a titanium alloy under thermo-mechanical fatigue", *Mechanics Research Communications*, 111, 103647, 2021.

Prof. Tanmoy Mukhopadhyay

1. Gupta K. K., Mukhopadhyay T., Roy A., Roy L Dey S. (2021). "Sparse machine learning assisted deep computational insights on the mechanical properties of graphene with intrinsic defects and doping", *Journal of Physics and Chemistry of Solids*, 155 110111, Elsevier Publication [Impact Factor: 3.99] (Corresponding author)
2. Adhikari S., Mukhopadhyay T., Liu X. (2021) "Broadband dynamic elastic moduli of honeycomb lattice materials: A generalized analytical approach", *Mechanics of Materials*, 157 103796, Elsevier Publication [Impact Factor: 3.27] (Corresponding author)
3. Mukhopadhyay T., Naskar S., Chakraborty S., Karsh P. K., Choudhury R., Dey S. (2021) "Stochastic oblique impact on composite laminates: A concise review and characterization of the essence of hybrid machine learning algorithms", *Archives of Computational Methods in Engineering*, 28 1731–1760, Springer Publication [Impact Factor: 7.31] (Corresponding author)
4. Trjnh M. C., Mukhopadhyay T. (2021) "Semi-analytical atomic-level uncertainty quantification for the elastic properties of 2D materials", *Materials Today Nano*, 15 100126, Elsevier Publication [Impact Factor: 8.12] (Corresponding author)
5. Mukhopadhyay T, Naskar S., Gupta KK, Kumar R, Dey S, Adhikari S. (2021) "Probing the stochastic dynamics of coronaviruses: Machine learning assisted deep computational insights with exploitable dimensions", *Advanced Theory and Simulations*, 4 2000291, Wiley Publication [Impact Factor: 4.00] (Corresponding author)
6. Vaishali, Mukhopadhyay T., Kumar R. R., Dey S. (2021) "Probing the multi-physical probabilistic dynamics of a novel functional class of hybrid composite shells", *Composite Structures*, 262 113294, Elsevier Publication [Impact Factor: 5.41] (Corresponding author)
7. Roy A., Gupta K. K., Naskar S., Mukhopadhyay T., Dey S. (2021) "Compound influence of topological defects and heteroatomic inclusions on the mechanical properties of SWCNTs", *Materials Today Communications*, 26 102021, Elsevier Publication [Impact Factor: 3.38]
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