- Generate a commentary for a given Shloka
- Sandi splitting using AI models
- Perform Sentiment Analysis

Geometric Deep Learning (GDL)

Geometric Deep Learning is a field in which we build neural networks that can learn insights from non-Euclidean data. Examples of non-Euclidean data types are Graphs, Point Clouds, and Manifolds. The Theory of Representation of Groups discusses the symmetry of a given Group. There are some developments in GDL using the symmetry of the Permutation Group. We are developing Deep Neural Networks for the segmentation of medical images using Clifford Algebras.

Physics

Nanomaterials for Magnetic, Dielectric, and Electromagnetic Interference Shielding Applications

Tin-doped magnetite (SnxFe3-xO4) nanoparticles-based polymer nanocomposites were developed for magnetic, dielectric, and electromagnetic shielding applications. The tin-doped magnetite nanoparticles were dispersed in PVDF polymer matrix and electroactive-superparamagnetic Sn0.2Fe2.8O4-PVDF nanocomposite films were fabricated. The dielectric constant of the SnO.2Fe2.8O4-PVDF nanocomposite films was enhanced by the addition of conducting Lanthanum Nickelate (LaNiO3) nanoparticles. These composite films may be useful for energy storage applications. Also, the development of an absorption-dominant microwave shield with excellent shielding effectiveness was achieved by the addition of graphite to the SnO.2Fe2.8O4-PVDF nanocomposite films. The flexible films meet the commercial standards of shielding effectiveness for X-band frequency EM waves.

A Collaborative & an Exploratory Research Project on Implementation of Deep Learning Techniques for Biomedical/ Radiological Imaging with SSSIHMS & SSSIHI.

Department of Physics along with DMACS have jointly undertaken a project in the Department of Urology in detecting Extra-pulmonary Tuberculosis in CT-based radiological imaging. The Clinical research team has been actively engaged in developing a Deep learning-based tool to detect GUTB which has a unique issue of nonlocalized growth zones /disease progression, unlike other renal disorders. A new DL-based GUTB detection tool and a User Interface module have been developed for the clinical user to easily use the DL model for detection. More data collection and validation are in progress to complete the project.

Fabrication of Versatile Nanomaterials for Water Remediation which will Pave the way for State-of-the-Art Water Purification Technologies

With zeal to help the local as well as the global populace in dealing with the colossal challenges of contaminated water, researchers at the Department of Physics have been developing versatile and multifunctional nanomaterials that can simultaneously adsorb multiple contaminants from water thereby reducing the cost of water purification technology. These tailor-made, novel, and efficient nano adsorbents pave the way for the development of cost-effective water filter prototypes.

Ultrafast Fiber Lasers

Ever since their invention in the 1960s, LASERs have taken Science and Technology to a whole new level of existence. Among different types of lasers, Ultrafast lasers have been a hot topic of research in the last few decades owing to their myriad advantages. Ultrafast lasers emit a train of ultrashort pulses whose timespans are of the order of pico/ femtoseconds. Such ultrashort pulses are extremely useful for applications that require high temporal resolution, high energy, intensity, and power. This Research area involves the development, characterization, and optimization of ultrafast fiber lasers through experiments, mathematical modeling, and simulations. The study of new fiber lasers, novel materials for saturable absorbers, and the development of in-house characterization facilities are important features of this research work. These ultrafast lasers will find applications in areas like OCT, micromachining, microscopy, spectroscopy, and sensing.

The Femtosecond Micromachining for Lab-on-a chip Applications

Optofluidic lab-on-a-chip applications utilize optical waveguides embedded in fused silica alongside microchannels that provide paths for fluids to flow. These 'lab-on-a-chip' platforms can be used for a variety of biosensing applications through fluorescence-based detection, interaction of evanescent fields with the analyte in the micro-channels, excitation of surface plasmon polaritons, as well as a variety of interferometric schemes. Our research aims to fabricate and integrate microchannels, waveguides, substrates for surface-enhanced Raman scattering (SERS), and electrodes in fused silica using femtosecond laser micromachining, customized for constructing specific sensing devices.



Funded Research Projects

SSSIHL continues to pursue needs-based research that will help alleviate problems affecting the poorer sections of society. During the academic year 2022-23, the total value of ongoing projects at the University was ₹2.19 Crores.

Biosciences

Understanding the Mechanisms Involved in the Emergence of Heteroresistance among Enterobacteriaceae

Indian Council of Medical Research (ICMR) ₹50 Lakhs

Exploration of Simultaneous Fluorescence and Phase Contrast Optical Imaging Methods Using Novel Fourier Optical Techniques for System Biology Applications

Society for Assistance International-USA ₹2.43 Lakhs

Food And Nutritional Sciences

Anti-diabetic Evaluation of Indian Pigmented Rice Varieties: A Mechanistic Metabolomic Based Approach

Indian Council of Medical Research (ICMR) ₹24 Lakhs

Humanities And Social Sciences

Economics

A Structural Model of the Current Account of India's Balance of Payments Under the New Economic Policy Regime

Indian Council of Social Science Research (ICSSR) - IMPRESS SCHEME

₹3.15 Lakhs

Mathematics and Computer Science

Time-Optimal Control Problems and Bifurcation Analysis of Coupled Non-Linear Dynamical Systems with Application to Pest Eradication

National Board for Higher Mathematics (NBHM) ₹15 Lakhs

Role and Interactions of Biological Markers in Causation of Type 1/Type 2 Lepra Reactions: A In Vivo Mathematical Modelling with Clinical Validation

The Council of Scientific & Industrial Research (CSIR) ₹15 Lakhs

Insurance Fraud Classifier for Health Insurance.

CAS Individual Grants Competition 2022 Casualty Actuarial Society, USA.

₹14 Lakhs

Physics

State-of-the-art, Low Cost, Dental Implant System Development Research Grant in Collaboration with Uppsala University, Sweden

Swedish Medical Council

₹64.38 Lakhs*

(*Note: The grant money will be administered by Uppsala University, Sweden)

Neutron Induced Reaction Cross-Section Measurements on Structural Materials Using Direct and Surrogate Technique

DAE-BRNS

₹31 Lakhs





Research Publications in Peer-Reviewed Journals

Biosciences

- Sai Sanwid Pradhan, Raksha Rao, K., Meghana Manjunath, Saiswaroop, R., Durga Prasad Patnana, Kanikaram Sai Phalguna, Bibha Choudhary, and Venketesh Sivaramakrishnan. (2023). Vitamin B6, B12 and Folate Modulate Deregulated Pathways and Protein Aggregation in Yeast Model of Huntington Disease. *3 Biotech*, 13 (3), 96. DOI: 10.1007/s13205-023-03525-v.
- Sriram Rathnakumar, Seemesh Bhaskar, Pradeep Kumar Badiya, Venketesh Sivaramakrishnan, Venkatesh Srinivasan, and Sai Sathish Ramamurthy. (2023).
 Electrospun PVA Nanofibers Doped with Titania Nanoparticles in Plasmon-coupled Fluorescence Studies: An Eco-friendly and Cost-effective Transition from 2D Nano Thin-films to 1D Nanofibers. *MRS Communications*, 13, 2. DOI: 10.1557/s43579-023-00342-5.
- Sriram Rathnakumar, Naga Sai Visweswar Kambhampati, Saiswaroop R., Sai Sanwid Pradhan, Ramkumar G., Nirmala Beeraka, Gopi Krishna Muddu, Sandeep Kumar, Sai Kiran Javvaji, Ashish Parangoankar, Venketesh Sivaramakrishnan, Sai Sathish Ramamurthy. (2023). Integrated Clinical and Metabolomic Analysis of Dengue Infection Shows Molecular Signatures Associated with Host-Pathogen Interaction in Different Phases of the Disease. *Metabolomics*, 19, 5. <u>DOI: 10.1007/s11306-023-</u> 02011-z
- Datta Darshan, V. M., Venketesh Sivaramakrishnan, and Arvind Kumar, K. (2023). Structural Systems Biology Approach Delineate the Functional Implications of Snps in Exon Junction Complex Interaction Network.
 Journal of Biomolecular Structure and Dynamics. DOI: 10.1080/07391102.2022.2164355
- Rajaratnam, S., Soman, A.P., Phalguna, K.S., Pradhan, S.S., Manjunath, M., Rao, R.K., Dandamudi R.B., Bhagavatham, S.K.S., Pulukool, S.K., Rathnakumar, S., Kocherlakota, S., Pargaonkar, A., Veeranna, R.P., Arumugam, N., Almansour, A.I., Choudhary, B., Sivaramakrishnan, V. (2023). Integrated Omic Analysis Delineates Pathways Modulating Toxic TDP-43 Protein Aggregates in Amyotrophic Lateral Sclerosis.
 Cells, 12,19, 1228, DOI: 10.3390/cells12091228.
- Pradeep Kodam, Sai Swaroop, R., Sai Sanwid Pradhan, Venketesh Sivaramakrishnan, Ramakrishna Vadrevu. (2023). Integrated Multi-Omics Analysis of Alzheimer's Disease Shows Molecular Signatures Associated with Disease Progression and Potential Therapeutic Targets.
 Scientific Reports. DOI: 10.1038/s41598-023-30892-6.
- Sankari, G.S., James, R., Payva, F., Venketesh Sivaramakrishnan, Kumar, T.V.V., Kanchi, S., Santhy, K.S. (2023). Computational Analysis of Sodium-Dependent Phosphate Transporter SLC20A1/Pit1 Gene Identifies Missense Variations C573F, and T58A as High-risk Deleterious SNPs. *Journal of Biomolecular Structure and Dynamics*. DOI: 10.1080/07391102.2023.2218939.

- Kantari Sai Anand Kannakazhi, Ranendra Pratap Biswal, Piyush Kumar, Malleswara Dharanikota, and Ashok Agraharam. (2023). Antioxidant and Antidiabetic Activities, and UHPLC-ESI-QTOF-MS-Based Metabolite Profiling of an Endophytic Fungus Nigrospora Sphaerica BRN 01 Isolated from Bauhinia Purpurea L. *Applied Biochemistry and Biotechnology*. DOI: 10.1007/s12010-023-04452-7
- Roshan Rai, Vishwanathan, A. S., and Vijayakumar, B. S. (2022). Antibacterial Potential of Silver Nanoparticles Synthesized Using Aspergillus Hortai. *BioNanoScience*. DOI: 10.1007/s12668-022-01043-4.
- Skanda, S., Bharadwaj, P.S.J., Datta Darshan, V.M., Venketesh Sivaramakrishnan, and Vijayakumar, B.S. (2022). Proficient Mycogenic Synthesis of Silver Nanoparticles by Soil Derived Fungus Aspergillus melleus SSS-10 with Cytotoxic and Antibacterial Potency. *Journal of Microbiological Methods*, 199,106517. DOI: 10.1016/j.mimet.2022.106517
- Sai S. Pradhan, Sai M. Thota, Sai Swaroop Rajaratnam, Sai Krishna Srimad Bhagavatham, Sujith K. Pulukool, Sriram Rathnakumar, Kanikaram S. Phalguna, Rajesh B. Dandamudi, Ashish Pargaonkar, Prasanth Joseph, Joshy E.V., and Venketesh Sivaramakrishnan. (2022). Integrated Multi-Omics Analysis of Huntington Disease Identifies Pathways that Modulate Protein Aggregation. *Disease Models & Mechanisms*, 15,10. <u>DOI:10.1242/dmm.049492</u>.
- Sai Swaroop, R., Akhil, P.S., Sai Sanwid Pradhan, Bandana Prasad, Raksha Rao, Meghana Manjunath, Bibha Choudhary, and Venketesh Sivaramakrishnan. (2022). Integrated Multi-Omic Data Analysis and Validation with Yeast Model Show Oxidative Phosphorylation Modulate Protein Aggregation in Amyotrophic Lateral Sclerosis. *Journal of Biomolecular Structure and Dynamics*. DOI: 10.1080/07391102.2022.2090441.
- Sai Swaroop R., Sai Sanwid Pradhan, Datta Darshan, V. M., Sai Phalguna Kanikaram, and Venketesh Sivaramakrishnan. (2022). Integrated Network Pharmacology Approach Shows a Potential Role of Ginseng Catechins and Ginsenosides in Modulating Protein Aggregation in Amyotrophic Lateral Sclerosis. *3Biotech*, 12, 12, 333. <u>DOI:</u> 10.1007/s13205-022-03401-1
- Sai Krishna Srimadh Bagavatham, Pulukool, S.K., Pradhan, S.S., Swaroop, R.S., Naik, A.A., Datta Darshan, V.M., and Venketesh Sivaramakrishnan. (2022). Systems Biology Approach Delineates Critical Pathways Associated with Disease Progression in Rheumatoid Arthritis. *Journal of Biomolecular Structure and Dynamics*. DOI: 10.1080/07391102.2022.2115555
- Meghana Manjunath, Sai Swaroop, Sai Sanwid Pradhan, Raksha Rao, Raghunandan Mahadeva, Venketesh Sivaramakrishnan, and Bibha Choudhary. (2022). Integrated Transcriptome and Metabolomic Analysis Reveal Anti-Angiogenic Properties of Disarib, A Novel Bcl2-Specific Inhibitor. *Journal of Biomolecular Structure and Dynamics*, 13, 7. <u>DOI: 10.3390/genes13071208</u>



- Nishant Koli, Datta Darshan, V. M., Dhivyaa Anandan, Venketesh Sivaramakrishnan, Amit Kumar Jaiswal, Siva Kumar Belliraj, Swarup Kundu and Santanu Roy. (2022). Probing into the Potential Features of Sodium Calcium Silicate (Na2Ca2Si3O9) Synthesized by the Solid-State Route. *Physica Scripta*, 97, 8. <u>DOI: 10.1088/1402-4896/ac7ae6</u>
- Vinodkumar, P. Sajjan, Lakkappa B. Anigol, Prabhuodeyara M. Gurubasavaraj, Kotresha, Sai Sanwid Pradhan, Venketesh, S., and Dhanashree Patil. (2022). Synthesis, Characterization and Molecular Docking of Phenoxyimine Based Ligands: Cytotoxicity, Hemolytic Activity, and Antioxidant Assessment. *J. Mol. Struct*, 133457. DOI: 10.1016/j.molstruc.2022.133457

Chemistry

- Kalathur Mohan Ganesh, Aayush Rai, Seemesh Bhaskar, Narendra Reddy, and Sai Sathish Ramamurthy (2023).
 Plasmon-Enhanced Fluorescence from Synergistic Engineering of Graphene Oxide and Sharp-Edged Silver Nanorods Mediated with Castor Protein for Cellphone-Based Attomolar Sensing. *Journal of Luminescence*, 260, 119835. DOI: 10.1016/j.jlumin.2023.119835
- Vijay Sai Krishna Cheerla, Kalathur Mohan Ganesh, Seemesh Bhaskar, Sai Sathish Ramamurthy, and Sunderesan Chittor Neelakantan (2023). Smartphone-Based Attomolar Cyanide Ion Sensing Using Au-Graphene Oxide Cryosoret Nanoassembly and Benzoxazolium-Based Fluorophore in a Surface Plasmon-Coupled Enhanced Fluorescence Interface. *Langmuir*, 39, 22, 7939-7957. DOI: 10.1021/acs.langmuir.3c00801
- Mani Chandrika, K.V.S., and Prathyusha, V. (2023). Is Chitin a Promising Hydrogen Storage Material? A Thorough Quantum Mechanical Study. *International Journal of Hydrogen Energy*, 48(44), 16779-16789. <u>DOI:10.1016/j.</u> ijhydene.2023.01.112
- Mani Chandrika, K.V.S., Abishek, H., and Prathyusha, V. (2023). A Thorough Investigation of the Adsorption of Metal Ions in Seawater on D-Glucose and its Analogues: A Theoretical Study. *Desalination*, 558, 116622. <u>DOI:10.1016/j.</u> <u>desal.2023.116622</u>
- Nitesh Tamang, Prajal Chettri, Bishnu, P. Joshi, Swayamsiddha Kar, Vaibhav Mahendrakar, Shailesh Srivastava, and Nageswara Rao Golakoti. (2023). Effect of Cycloalkanone Ring Size on Second and Third Order Nonlinear Optical Properties of Bischalcones. *Optical Materials*, 140, 113825. DOI: 10.1016/j.optmat.2023.113825.
- Moorthy, H., Yadav, M., Tamang, N., Mavileti, S.K., Singla, L., Choudhury, A.R., Sahal, D., and Golakoti, N.R. (2023). Antiplasmodial and Antimalarial Activity of 3, 5-Diarylidenetetrahydro-2H-pyran-4 (3H) -ones via

- Inhibition of Plasmodium falciparum Pyridoxal Synthase. *ChemMedChem*,18(1), e202200411. <u>DOI: 10.1002/</u>cmdc.202200411.
- Tamang, N., Mavileti, S.K., Yadav, M., Nanduri, S., Sahal, D., and Golakoti, N.R. (2023). Synthesis and Anti-plasmodial Activity of isoandrographolide acetals. *Chemical Papers*, 77, 3015–3023. <u>DOI:</u> 10.1007/s11696-023-02684-9.
- Nayak, S.P., Ventrapragada, L.K., Rao, A.M., and Kumar, J.K. (2023) Porous Gold-Curcumin Nanocomposite for Enhanced Electrooxidation of Glycerol and Ethylene Glycol. *Materials Letters*, 330:133212. <u>DOI: 10.1016/j.</u> matlet.2022.133212
- Sriram Rathnakumar, Seemesh Bhaskar, Pradeep Kumar Badiya, Venketesh Sivaramakrishnan, Venkatesh Srinivasan, and Sai Sathish Ramamurthy. (2023). Electrospun PVA Nanofibers Doped with Titania Nanoparticles in PlasmonCoupled Fluorescence Studies: An Eco-Friendly and CostEffective Transition From 2D Nano Thin Films To 1D Nanofibers. *MRS Communications*, 13, 290-298. DOI: 10.1557/s43579-023-00342-5
- Sriram Rathnakumar, Naga Sai Visweswar Kambhampati, R. Saiswaroop, Sai Sanwid Pradhan, G. Ramkumar, Nirmala Beeraka, Gopi Krishna Muddu, Sandeep Kumar, Sai Kiran Javvaji, Ashish Parangoankar, Venketesh Sivaramakrishnan, Sai Sathish Ramamurthy. (2023). Integrated Clinical and Metabolomic Analysis of Dengue Infection Shows Molecular Signatures Associated with HostPathogen Interaction in Different Phases of the Disease.
 Metabolomics, 19, Article number: 47. DOI: 10.1007/s11306-023-02011-z
- Kumar, P. J., Raghavan, P. S., Induja, S., Chandra, B. P., Kolli, N. K., and Parthasarathy, V. (2023). Activation of Neem Flower with CTAB For Irreversible Adsorption of Methyl Orange Isotherm, Kinetics, and Thermodynamics Studies. *Biomass Conversion and Biorefinery*, 1-11. <u>DOI: 10.1007/s13399-023-04157-1</u>.
- Rai, P., Singh, J., Kumar, R., Saripella, S., and Golakoti, N.R. (2022). Design, Synthesis, in vitro, and in vivo Anti-Cancer Evaluation of the Novel Spirobibenzopyrans on Epithelial Cancer Model of Drosophila Melanogaster. *Chemical Papers*, 76(10), 6401-13. <u>DOI: 10.1007/s11696-022-02321-x</u>
- Mani Chandrika, K.V.S., and Prathyusha, V. (2022).
 D-glucose and its Analogue, D-glucosamine, as Potential Hydrogen Storage Materials: A Quantum Mechanical Study.
 International Journal of Hydrogen Energy, 47(57), 24014-24025.
 DOI: 10.1016/j.ijhydene.2022.05.187
- Gopi, U.V., Prateek Bhojane, and Kumar Sai Smaran (2022). Engineering Oxygen-Deficient Nanocomposite Comprising Lanio3-Δ and Reduced Graphene Oxide for High-Performance Pseudocapacitors. *Journal of Energy Storage*, 54, 105301. DOI: 10.1016/j.est.2022.105301



- Durga Prasad Patnana, Chandra, B.P., Pooja Chaudhary, Baerbel Sinha, and Vinayak Sinha (2022), Optimised LC-MS/MS Method for Simultaneous Determination of Endocrine Disruptors and Pahs Bound to PM2.5: Sources and Health Risk in Indo-Gangetic Plain.
 Atmospheric Environment, 290, 119363. DOI: 10.1016/j. atmosenv.2022.119363
- Biswas, A., Chandra, B. P., and Prathibha, C. (2022). Highly Efficient and Simultaneous Remediation of Heavy Metal Ions (Pb (II), Hg (II), As (V), As (III), And Cr (VI)) from Water Using Ce Intercalated and Ceria Decorated Titanate Nanotubes. *Applied Surface Science*, 612, 155841. <u>DOI:</u> 10.1016/j.apsusc.2022.155841
- Ranendra Pratap Biswal, Durga Prasad Patnana, Ravi Kishore Vutukuri, V. N. (2022) Metabolic Profiling of Averrhoa Carambola Fruit Extract using UHPLC-ESI-QTOF-MS and Determination of the Concentration of Essential Elements Using MP-AES. *Analytical Chemistry*. *Letters*, 12(4), 505-527. DOI: 10.1080/22297928.2022.2124125.
- Aayush Rai, Seemesh Bhaskar, Kalathur Mohan Ganesh, and Sai Sathish Ramamurthy. (2022). Hottest Hotspots from the Coldest Cold: Welcome to Nano 4.0. ACS Applied Nano Materials, 5, 9, 12245–12264. DOI: 10.1021/ acsanm.2c02556
- Seemesh Bhaskar, Aayush Rai, Kalathur Mohan Ganesh, Roopa Reddy, Narendra Reddy, and Sai Sathish Ramamurthy. (2022). Sericin-based Bio-inspired Nanoengineering of Heterometallic Agau Nanocubes for Attomolar Mefenamic Acid Sensing in the Mobile Phone-Based Surface Plasmon-Coupled Interface. *Langmuir*, 38, 39, 12035-12049, <u>DOI: 10.1021/acs.langmuir.2c01894</u>
- Aayush Rai, Seemesh Bhaskar, Kalathur Mohan Ganesh, and Sai Sathish Ramamurthy. (2022). Cellphone-Based Attomolar Tyrosine Sensing Based on Kollidon-Mediated Bimetallic Nanorod in Plasmon-Coupled Directional and Polarized Emission Architecture. *Materials Chemistry and Physics*, 285, 126129. DOI: 10.1016/j. matchemphys.2022.126129
- Ram Murthy, Vedarajan, R., and Sundaresan, C.N. (2022).
 Quantum Chemical and Electrochemical Evaluation of Isoperthiocyanic Acid Derivatives as Novel Corrosion Inhibitors of Mild Steel in 2 M Hydrochloric Acid. Surface Engineering and Applied Electrochemistry, 58(6):657-73.
 DOI: 10.3103/S106837552301012X
- Nayak, S.P., Ventrapragada, L.K., Kumar, J.K., and Rao, A.M. (2022). A Porous Gold-Curcumin Nanocomposite for Picomolar Real-time Detection of Dopamine in Urine. *Journal of The Electrochemical Society*, 169 (12), 127511. DOI: 10.1149/1945-7111/aca83b

- Ram Murthy and Sundaresan Chittor Neelakantan. (2022). Graphitic Carbon Cloth-Based Hybrid Molecular Catalyst: A Non-conventional, Synthetic Strategy of the Drop Casting Method for a Stable and Bifunctional Electrocatalyst for Enhanced Hydrogen and Oxygen Evolution Reactions. *ACS Omega*, 7 (36) 32604–32614. <u>DOI: 10.1021/acsomega.2c04199</u>
- Ram Murthy and Sundaresan Chittor Neelakantan. (2022). Immobilization of Molecular Complexes on Graphitized Carbon Cloth as Stable and Hybrid Electrocatalysts for Enhanced Hydrogen Evolution Reaction and Oxygen Evolution Reaction. *Materials Advances*, 3, 8201-8210. DOI: 10.1039/D2MA00764A
- Murthy, R., Krishna, K.R., and Sundaresan, C.N. (2022). Exploring the Role of Sodium Dodecyl Sulphate in the Presence of 2-Thioureidobenzoxazole as Enhancer of Corrosion Inhibition of Mild Steel in 2 M HCl Solution. *International Journal of Electrochemical Science*, 17(09)22094. DOI: 10.20964/2022.09.43

Education

- Sai Soujanya Kumari, B., and Lavanya, P. (2023).
 Instructional Model for Constructivist Approach in Promoting Values and Life Skills through Pedagogy of Biological Science. *International Journal of Advance and Applied Research*, 4(10), ISSN No. 2347-7075. DOI: 10.5281/zenodo.7820656
- Padmambika, P., and Lavanya, P. (2023). Ashtanga Yoga A
 Panacea for Adolescence Wellbeing. Scholarly *Research Journal for Interdisciplinary Studies, Double-Blind Reviewed Journal*, 10 (75), ISSN (E) 2278-8808, ISSN (P)
 2319-4766.
- Padmambika, P., and Lavanya, P. (2023). Yogic Diet in Promotion of Wellbeing An Analytical Study.
 International Journal of Creative Research Thoughts
 (IJCRT), 11(4), ISSN: 2320-2882. DOI. https://www.ijcrt.org/papers/IJCRT2304991.pdf.
- Sai Soujanya Kumari, B., and Lavanya, P. (2022). Teachers
 Willingness for Implementation of Value Integrated
 Constructivist Approach in Pedagogy An Empirical Study.

 Research and Reflections on Education, 20 (4), ISSN No.
 0974-648X. https://www.sxcejournal.com/oct-dec-22.html
- Book Chapter: Sai Soujanya Kumari, B., and Lavanya, P. (2022). Promoting Life Skills Through Value Integrated Constructivist Approach. In Prof. C. K. Ramaiah, & Prof. K. Chellamani, Constructivism in Teaching and Learning, ISBN:978-93-5768-275-6



Food And Nutritional Sciences

- Srividya, N., Ashrita C. Haldipur, and Carani B. Sanjeevi. (2023). Plant Foods and their Phytochemicals as DPP IV and PTP 1B inhibitors for Blood Glucose Regulation: A Review. *Journal of Indian Institute of Science*, Special issue 103, 149-165. DOI:10.1007/s41745-023-00371-y
- Sravani, G., Sai Supriya, Lazima, R., Alisha, P., and Srijaya, M. (2023). Impact of COVID-19 Pandemic Lockdown on Post-Harvest Management of Fruits and Vegetables in Three Districts of Andhra Pradesh. *Journal of Postharvest Technology*. 11(2), 102-112. https://jpht.in/MenuscriptFile/5012a8a0-1be8-4ac4-8f0f-169a0e7473ab.pdf
- Saiharini, N., and Padmaja, A. (2022). Studies on Nutrient and Phytochemical Composition and Assessment of In Vitro Antioxidant and Enzyme Inhibitory Properties of Watermelon Fruit By-products. *An International Journal Annals of Phytomedicine* 11(11), 419-425. DOI: http://dx.doi.org/10.54085/ap.2022.11.1.48
- Saiharini, N., and Padmaja, A. (2022). Extraction and Characterization of Pectin from Watermelon By-Products.
 International Journal of Food and Nutritional Sciences 11(7), 588-605. e-ISSN 2320-7876. DOI: 10.48047/ IJFANS/V11/I7/52.
- Katta Sanvika, Bollu Sai Sruthi and Jhinuk Gupta. (2022). Food Quality During COVID-19 Pandemic in South India: Consumer Survey and DART (Detect Adulteration with Rapid Test) Analyses. *International Journal of Food and Nutritional Sciences*. 11, S (2), 156-169. DOI:/jcdr.2022.23/11/2022
- Book: Mekha, M.S., and Andallu, B. (2023). Evaluation of Trachyspermum ammi L. for Medicinal Properties.
 LAP Lambert Academic Publishing GmbH & Co. KG Germany. ISBN: 9786206150367
- Book: Ashrita, C.H., and Andallu, B. (2022). Antioxidant
 Potential of Ajwain (Trachyspermum ammi L.) Seeds
 and Oil. LAP Lambert Academic Publishing GmbH & Co.
 KG Germany. ISBN: 978-620-5-49583-4.
- Book Chapter: Srividya, N., Ashrita C. Haldipur, and Carani B. Sanjeevi. (2023). Dietary Interventions to Combat Obesity in Metabolic Syndrome - Role of Time Restricted Eating (Chapter 72). In: Satinath Mukhopadhyay & amp; Sunetra Mondal (Ed.,), Metabolic Syndrome, Elsevier, USA (In press).

Book Chapter: Sumana, A., and Barbhai Mrunal, D. (2023). Risk Analysis in Food Safety - An Overview (Chapter 7). In: Food Safety and Standards: Laws, Tools and Management Systems, New India Publishing Agency (NIPA). India.

Humanities And Social Sciences

Economics

- Brajendra C. Sutradhar and R. Prabhakar Rao, R (2023).
 Asymptotic Inferences in a Doubly-Semi-Parametric Linear Longitudinal Mixed Model. *Sankhya A*, volume 85, pp. 214-247. <u>DOI: 10.1007/s13171-020-00239-8.</u>
- Akash P. Poojari, Siva Kiran Guptha and Raghavender Raju, G. (2022). Multifractal Analysis of Equities. Evidence from the Emerging and Frontier Banking Sectors. *Theoretical and Applied Economics*, 3(632), Autumn, 61-80. http://store.ectap.ro/articole/1608.pdf.
- Nitin Ranganathan and Raghavender Raju, G. (2022).
 Macro Stress Testing of Selected Banks in India: An
 Intermodelling Approach Using the VAR Framework.

 Name of Journal IPE Journal of Management, pp: 1-29.
 https://www.ipeindia.org/wp-content/uploads/2022/09/IPE-Journal-of-Management-Jan-June2022-issue.pdf.
- Suresh Kumar Dahal and Raghavender Raju, G. (2022).
 An Analysis of the Exchange Rate Regime of Nepal:
 Determinants and Inter-Dynamic Relationship with
 Macroeconomic Fundamentals. *Journal of Asian*
 Finance, Economics and Business, 9(7), 0027-0039, DOI: https://doi.org/10.13106/jafeb.2022.
- Sewak Pradhan and Raghavender Raju, G. (2022).
 Monetary Policy Shocks and Macroeconomic Variables:
 Evidence from India. *Journal of Economic Policy and Research*, 16 (1), 2-17. https://www.ipeindia.org/wp-content/uploads/2021/11/Current-Issue.pdf.
- Behera, D.K., Singh, S.K. and Choudhury, D.K. (2022). The Burden of Transport Injury and Risk Factors in India from 1990 to 2019: Evidence from the Global Burden of Disease Study. *Arch Public Health*, 80(204), pp. 2-17, DOI: https://doi.org/10.1186/s13690-022-00962-8.

Languages & Literature

English

 Sai Archana, M., and Rani, P.L. (2023). Towards an Eclectic Approach: Revisiting the Models of Communicative Competence. *Aruhu Kuruhu*, 13(52), 245-248. ISSN: 2347-5048.



- Sreenidhi, S., and Maitali Khanna. (2023). Cognitive Stylistic Analysis of the Tree Metaphor in A.K. Ramanujan's "Carpe Diem". *Literary Voice*, 1(20), 187-194. ISSN 2277-4521.
- Behera, A. K. (2023). The Impact of Phonological Variation on Second Language Acquisition (SLA). *International Journal of Novel Research and Development*, 8 (5), 590-596. ISSN: 2456-4184.
- Lekshmi, Chandra., and Rani, P.L. (2023). Palestinian Partition Memory in Barghouti's 'I Was Born There, I Was Born Here'. *Research Journal of English* (RJOE), 8(2), 107-116. ISSN: 2456-2696.
- Megha Santhosh and Rani P. L. (2023). Transgenerational Trauma in Madhuri Vijay's "The Far Field". *The Dawn Journal*, 12(1), 1641-1645, ISSN 2277-1786. DOI: https://doi.org/10.56602/TDJ/12.1.1641-1645
- Priyamvada, C., Maitali Khanna, and Praphulla, M. (2023). Finding Meanings in Ted Hughes' "Thrushes" Through Śabdaśaktyudbhava and Arthaśaktyudbhava Dhvani. **Shodhasambita**, 9(1), 108-117. ISSN-2277-7067.
- Venkataramana, B., and Prashant Luthra (2023). Antonio's Melancholy in The Merchant of Venice - A Critique.
 Research Journal of English, 8 (2) 82-86. ISSN: 2456-2696.
- Ponapalli Prasanti Prabha and Dibba Bhargavi (2023). A
 Journey Towards Self-realization: An Indian Reading of Iris
 Murdoch's 'Henry and Cato'. *Research Journal of English*(*RJOE*), 8(2), 60-66. ISSN: 2456-2696.
- Ponapalli Prasanti Prabha and Dibba Bhargavi (2023). A
 Quest for Enlightenment: An Indian Philosophical Reading
 of Iris Murdoch's The Green Knight. *The Literary Herald*,
 8 (5). ISSN: 2454-3365.
- Prativa Rai and Maitali Khanna. (2022). A Pilgrimage Towards Truth and Beauty Through Goodness: A Study of Tagore's Selected Short Stories. *The Literary Herald*, 8 (1). ISSN: 2454-3365.
- Sai Harshitha and Bhargavi Dibba. (2022). A Path to Self-Realisation: Iris Murdoch's The Green Knight as a Novel of Transformational Journey. *The Literary Herald*, 8 (1). ISSN: 2454-3365.
- Harshitha, B. Sai and Maitali Khanna. (2022). Transitivity
 Analysis of 'The Elves and the Cobbler' and 'The Gifts
 of the Little People' from Grimm's Fairy Tales. Roots:
 International Journal of Multidisciplinary Research,
 9(1), 19-26. ISSN: 2349-8684.
- Vivek Chauhan and Kabir Debnath. (2022). Mental Health and the Artist: The case of Charles Dickens. International

- *Journal of Research and Analytical Reviews* (IJRAR).9(2), 364-366. E-ISSN: 2348-1269.
- Book Chapter: Behera A K. (2023). Baker, Roy Ward (1916-2010). In Kevin A. Morrison, *Encyclopedia of London's East End*, (pp.16), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Behera A K. (2023). Barnard, Frederick (1846-1896). In Kevin A. Morrison, *Encyclopedia of London's East End*, (pp.19), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Behera A K. (2023). Baron, Alexander (1917–1999). In Kevin A. Morrison, *Encyclopedia of London's East End*, (pp.20), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Behera A K. (2023). Fishman, William
 J. (1921-2014). In Kevin A. Morrison, Encyclopedia of
 London's East End, (pp.83), McFarland & Company, Inc.
 978-1-4766-8399-7.
- Book Chapter: Mishra, P.P. & A.K. Behera. (2023). Fifth Congress of the Russian Social Democratic Labour Party. In Kevin A. Morrison, *Encyclopedia of London's East End*, (pp.83), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Mishra, P.P. & A.K. Behera. (2023).
 Mudchute Park and Farm. In Kevin A. Morrison,
 Encyclopedia of London's East End, (pp.160), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Mishra, P.P. & A.K. Behera. (2023). Thorne, Will (1857-1946). In Kevin A. Morrison, *Encyclopedia of London's East End*, (pp. 228), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Mishra, P.P. & A.K. Behera. (2023). Tillett, Ben (1860-1943). In Kevin A. Morrison, *Encyclopedia of London's East End*, (pp. 229), McFarland & Company, Inc. 978-1-4766-8399-7.
- Book Chapter: Aditi Kumari and Vani Sri, N. (2023).
 A Comparative Analysis of the Protagonist in Amish's Sita: Warrior of Mithila and Chitra Banerjee Divakaruni's The Forest of Enchantments. Contemporary

 Contemplations: Language, Literature & Culture, Emerald Publishers, Pg. 108. ISBN: 9789390677764.
- Book Chapter: Prashanthi, V., and Vani Sri, N. (2023). A Linguistic Analysis of Selected Advertisements. Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, Pg. 145. ISBN: 9789390677764.



- Book Chapter: Shruthi Sayantini Behera and Maitali Khanna. (2023). 'Lamia' as a Symbol of Eco-connectivity: Exploring Organic Interaction Among the Mythological Characters in Keats' "Lamia". Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, 18-24.2023. ISBN: 9789390677764.
- Book Chapter: Yukti Bhardwaj and Maitali Khanna. (2023). Tinker Bell and the Legend of the Never Heard Beast: An Anthropocentric Approach. Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, 18-24. ISBN: 9789390677764.
- Book Chapter: Shivapriya Seetharaman and Maitali Khanna. (2023). The Lord of the Flies: A Deep Ecological Perspective. Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, 18-24. ISBN: 9789390677764.
- Book Chapter: Yadha Lama and Aarthi, R. M. (2023).
 Ocean as a Muse: An Interpretation of Select English Songs.
 Ruminations: Language, Literature & Culture, Emerald Publishers, pp. 17-22. ISBN: 9788119106011.
- Book Chapter: Dikshya Chettri and Vijayalekshmi, R. (2023). Female Bildungsroman in Immigrant Fiction:
 Gender and Genre in Brick Lane. *Ruminations: Language, Literature & Culture*, Emerald Publishers, pp148-155. ISBN: 9788119106011.
- Book Chapter: Meghana S Mandalappu and Sai Harshitha (2023). Disney's Cultural Fortress: Understanding Its Social and Cultural Impact. Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, 37-47. ISBN: 9789390677764.
- Book Chapter: Sathyapriya Dharshini, S., and Rani, P. L. (2023). Exploring the Possibility of Integration: MAXQDA Use for Critical Discourse Analysis. Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, 25-36. ISBN: 9789390677764.
- Book Chapter: Deepanjali Pradhan and Sai Harshitha (2023). Tennessee William's The Glass Menagerie as a Memory Play Through a Psychological Approach.
 Contemporary Contemplations: Language, Literature & Culture, Emerald Publishers, 79-86. ISBN: 9789390677764.
- Book Chapter: Sai Chandana, R., and Sai Harshitha
 (2023). An Eco-Critical Analysis of Lucca. Contemporary
 Contemplations: Language, Literature & Culture,
 Emerald Publishers, 94-100. ISBN: 9789390677764.
- **Book Chapter:** Niveditha, P., and Aarthi, R. M. (2023). The Creature's Perception of the Self in Mary Shelley's

- Frankenstein. *Contemporary Contemplations: Language, Literature & Culture*, Emerald Publishers, 123-128. ISBN: 9789390677764.
- Book Chapter: Pem Doma Sherpa and Aarthi, R. M. (2023).
 An Ecocritical Reading of Thomas Gray's "Elegy Written in a Country Churchyard". Contemporary Contemplations:
 Language, Literature & Culture, Emerald Publishers, 160-164. ISBN: 9789390677764.
- Book: Sai Archana, M. (2022). Of Lost Love and Warm Nests. BookLeaf Publishing (Srinagar, J&K). ISBN 10-9357611223/13-978-9357611220

Sanskrit

- Narayana, M. B. S. S. (2022). Dharmarajasya Patrachitranam-Viraatparvam. *International Journal of Sanskrit Research*, 8(4), 152-154. ISSN 2394-7519.
- Book: Narayana, M. B. S. S. (2022). Yudhisthirasya Mahatvam. Publisher's Name, City, ISBN: 978-93-5780-574-2.

Telugu

 Book: Narayana, M. B. S. S. (2023). Naku Telisina Maa Amma Nanna. M. B. S. S Narayana, Publishers, Vijayawada, ISBN: 978-93-5813-390-5.

Management And Commerce

- Krishnamurthy, S.M. and Venkitachalam, K., (2023).
 The Changing Face of Retailing, 1980-2020. *Journal of Strategy and Management*, 16 (1), 41-55.DOI: https://doi.org/10.1108/JSMA-02-2022-0035
- Chandrahaas, C. S., and Narasimhan, N. (2022). Authentic Leadership and Affective Organizational Commitment: The Mediating Role of Workplace Psychological Safety.
 International Management Review, 18(1), 12-103.
- Srinivas, K. J., and Sai Giridhar, B. (2022) Predicting Economic Sustainability of Rural Areas using Decision Tree Model - A Study in Select regions of Southern India, Stochastic Modeling and Applications, Vol. 26 (3), Part -8.
- Srinivas, K. J., and Sai Giridhar, B. (2022). Mitigating
 Risk and Augmenting Farmer's Income through
 Livelihood Diversification Framework, *Journal of Rural Development*, 41(2), 155-170. DOI: https://doi.org/10.25175/jrd/2022/v41/i2/157590
- Sai Krishnan, S., and Subramanian Iyer, S., (2022), Can Waste Aversion Affect Demand for Insurance? Evidence

- from Experiment and Survey. *Economics Letters*, 216, (C), S016517652200177X, ISSN 0165-1765. DOI: https://doi.org/10.1016/j.econlet.2022.110594
- Sai Vinod, M.S., Pranav Umesh, Sivakumar, N. (2022). Impact of Covid-19 on Corporate Social Responsibility in India - a Mixed Methods Approach. *International Journal* of Organisational Analysis, ISSN: 1934-8835. DOI: https://doi.org/10.1108/IJOA-O3-2022-3206
- Pranav Umesh and Sivakumar, N. (2022). Stakeholder Identification for CSR in Secondary Education in India:
 A Mixed Method Approach, *International Journal of Indian Culture and Business Management*, 25 (2), 255 281. DOI: https://doi.org/10.1504/IJICBM.2021.10038819

Mathematics And Computer Science

- Sunil Kumar, P., and Raghunatha Sarma, R. (2023).
 Combined Sequential Rule Mining for Social Security
 Schemes Ayushman Bharat-Pradhan Mantri Jan Arogya
 Yojana (AB-PMJAY) as a Case Study. *Dongbei Daxue*
 Xuebao /Journal of Northeastern University, 26. 361-374. https://dbdxxb.cn/
- Vikas, G.N., Darshan Gera and Balasubramanian. (2023). Instance Discrimination based Robust Training for Facial Expression Recognition Under Noisy Labels. SN Computer Science, 4, 6. DOI: https://doi.org/10.1007/s42979-022-01410-8 (Scopus Indexed)
- Rahul Poddar, Balasubramanian, S., and Ramesh Sharma.
 (2023). Yamabe Solitons in Contact Geometry. *New Zealand Journal of Mathematics*, DOI: https://nzjmath.org/index.php/NZJMATH
- Rahul Poddar, Balasubramanian, S., and Ramesh Sharma. (2023). Generalized m-Quasi-Einstein Manifolds Admitting A Closed Conformal Vector Field. *Annali di Matematica Pura ed Applicata*, DOI: https://doi.org/10.1007/s10231-023-01335-w
- Rahul Poddar, Balasubramanian, S., and Ramesh Sharma. (2023). Rigidity Results on Generalized m-Quasi Einstein Manifolds with Associated Affine Killing Vector Field.
 International Electronic Journal of Geometry 1307-5624. DOI: 10.36890/IEJG.1286128
- Bhaskaran Venkatsubramaniam and Pallav Kumar Baruah. (2023). XAI Using Formal Concept Lattice for Image Data.", *ICTACT Journal on Image and Video Processing*, Vol. 13(3), 2904 - 2913. DOI: 10.21917/ijivp.2023.0414
- Ananth, V. S., and Vamsi, D. K. K. (2023). Time-Optimal Control Studies and Sensitivity Analysis of Additional Food Provided Prey-Predator Systems Involving Holling Type III Functional Response Based on Quality of

- Additional Food. *Journal of Biological Systems, World Scientific*, Vol 31(1), 271-308, DOI: https://doi.org/10.1142/50218339023500134. (SCI and Scopus Indexed).
- Bhanu Prakash and Vamsi, D. K. K. (2023). Stochastic
 Optimal and Time-Optimal Control Studies for Additional
 Food Provided Prey-Predator Systems Involving Holling
 Type III Functional Response. *Computational and Mathematical Biophysics, De Gruyter*, Vol 11, 1-17, DOI:
 https://doi.org/10.1515/cmb-2022-0144. (Scopus Indexed).
- Uday Kiran, N. (2023). Proof Without Words: Inversion Number of Binary Words. *Math Intelligencer*. DOI: https://doi.org/10.1007/s00283-023-10276-4.
- Sairaam, V., Balasubramanian, S., and Raghunatha Sarma, R. (2022). Iterative Collaborative Routing Among Equivariant Capsules for Transformation-Robust Capsule Networks.
 ICTACT Journal on Image and Video Processing (IJIVP), 0976-9099, https://ictactjournals.in/ArticleDetails.aspx?id=10518.
- Sairaam, V., Balasubramanian, S., and Raghunatha Sarma, R. (2022). Robustcaps: A Transformation Robust Capsule Network for Image Classification. *ICTACT Journal on Image and Video Processing* (IJIVP). DOI: https://ictactjournals.in/ArticleDetails.aspx?id=11117.
- Rahul Poddar, Balasubramanian, S., and Ramesh Sharma. (2022). Nearly Kaehler Manifolds Admitting a Closed Conformal Vector Field. *Beiträge Zur Algebra Und Geometrie / Contributions to Algebra and Geometry*, 0138-4821, 2191-0383. DOI: https://doi.org/10.1007/s13366-023-00682-2.
- Bhaskaran Venkatsubramaniam and Pallav Kumar Baruah. (2022). A Novel Approach to Explainable AI Using Formal Concept Lattice. *International Journal of Innovative Technology and Exploring Engineering, and Blue Eyes Intelligence Engineering and Sciences Engineering and Sciences Publication* - BEIESP. DOI: https://doi.org/10.35940/ijitee.g9992.0611722.
- Bhaskaran Venkatsubramaniam and Pallav Kumar Baruah. (2022). Comparative Study of XAI Using Formal Concept Lattice and Lime. *ICTACT Journal on Soft Computing*, Vol. 13 (1), 2782 - 2791. DOI: 10.21917/ijsc.2022.0386.
- Bishal Chhetri, Vamsi, D. K. K., Balasubramanian S, and Carani B Sanjeevi. (2022). Age Structured Mathematical Modeling Studies in COVID-19 Identifies Combination Therapy of Vaccination and Medical Treatment to be Most Effective in Reducing COVID-19 Infection and Deaths.
 Computational and Mathematical Biophysics, De Gruyter, Vol 10, 281-303, DOI: https://doi.org/10.1515/cmb-2022-0143. (Scopus Indexed).



Music

- Sai Ram, S. (2023). The Beauty of Fixed Compositions of Tabla. Sangeet Galaxy, 12(1), 82-90.
- Sai Ram, S. (2023). Significance of Oral Recitation (Padhant) of Tabla Compositions. *Kutap - An Ensemble of Musicians*, 6(8), 90-94.
- Aantha Rao D. (2023). Tala and its Significance, Naad-Nartan - Journal of Dance and Music, 11(1), 17-21.
- Anatha Rao D. (2022). Folk Percussion Instruments.
 International Journal of Applied Research IJAR, 8(9), 192-196.

Physics

- Vijay Sai, K., Deepa Seetharaman, Ravi Gopal, A., Madhusudhana Rao, K., Srinivasa Pradeep, A., and Venkataramaniah Kamisetti. (2023). Electron-Gamma Spectroscopic Studies in 131Xe from the 13II decay.
 Physics of Atomic Nuclei, 86 (3), 221-228.DOI: https://doi.org/10.1134/S1063778823030146.
- Lavanya Rathi, P., Bharathi Ponraj, and Deepa, S. (2023). Enhancement of Dielectric and Magnetic Properties of Electroactive Lanio3 Based Pvdf Films by Inclusion of Magnetic SnO.2Fe2.8O4 Nanofiller, *Materials Chemistry*, *and Physics*, 297, 127259-127269. DOI: https://doi.org/10.1016/j.matchemphys.2022.127259.
- Anjana Biswas, Chandra, B.P., and Prathibha, C. (2023).
 Highly Efficient and Simultaneous Remediation of Heavy
 Metal Ions (Pb(II), Hg(II), As(V), As(III), and Cr(VI)) from
 Water Using Ce Intercalated and Ceria Decorated Titanate
 Nanotubes, *Applied Surface Science*, 612, 155841. DOI:
 https://doi.org/10.1016/j.apsusc.2022.155841.
- Lokeswararao Dhavala, Sai Muthukumar, V., Vijay Sai Kollipara, and Varma Kalidindi, B. R. (2023). Exceptional Dielectric and Varistor Properties of Sr, Zn, and Sn Co-Doped Calcium Copper Titanate Ceramics. *RSC Advances*, 2023,13, 10476-10487. DOI: https://doi.org/10.1039/D3RA00743J.
- Lokeswararao Dhavala, Sai Muthukumar, V., Vijay Sai Kollipara, and Varma Kalidindi B. R. (2023). Superior Dielectric and Varistor Properties of Zno or Sno₂
 Diffused Calcium Copper Titanate Ceramics. *Journal of Applied Physics*, 133 (9), 094103. DOI: https://doi.org/10.1063/5.0139359.

- Olshanoski, K., Nkuba, L., Dang, N.P., Fukuchi, T., Kanda, H., Lugendo, I.J., Vijay Sai, K., and Ranagacharyulu, C. (2023). Collimator Design for Gamma-Ray Cascade Angular Correlations in Medical Imaging. *Journal of Instrumentation*, 18, JINST 18 C05010. DOI: https://iopscience.iop.org/article/10.1088/1748-0221/18/05/C05010/pdf.
- Krisanta Rai and Swarup Kundu. (2023). B₂O₃ as an Effective Sintering Aid in Enhancing the Lithium-Ion Conductivity of Lita₂po₈ Solid Electrolyte. *Journal of Power Sources*, 576, 233229. DOI: https://doi.org/10.1016/j.jpowsour.2023.233229.
- Anjana Biswas and Prathibha, C. (2022). Metal Ion-Intercalated Layered Hydrogen Tri-titanate Nanotubes: Synthesis, Characterization and their use in Ultrafast and Enhanced Removal of Hazardous Contaminant Fluoride from Water, *Materials Advances*, 3, 5947-5963. DOI: https://doi.org/10.1039/D2MAO0434H.
- Vijay Sai, K., Madhusudhana Rao, K., Rajasekhar, E., Dwaraka Rani Rao, Deepa Seetharaman, and Venkataramaniah Kamisetti. (2022). Precise Conversion Electron Intensities of Low Energy Gamma Transitions for Efficiency Calibration of Electron Detectors. *Applied Radiation and Isotopes*, 189, 110410. DOI: https://doi.org/10.1016/j.apradiso.2022.110410.
- Ananthan Alagumalai, Muthukumar Venu Rajendran, Saraswathi Ganesan, Vidya Sudhakaran Menon, Rohith Kumar Raman, Sai Manohar Chelli, Sai Muthukumar Vijayasayee, Senthil A. Gurusamy Thangavelu, and Ananthanarayanan Krishnamoorthy. (2022). Interface Modification with Holistically Designed Push-Pull D-ω-A Organic Small Molecule Facilitates Band Alignment Engineering, Efficient Defect Passivation, and Enhanced Hydrophobicity in Mixed Cation Planar Perovskite Solar Cells. ACS Applied Energy Materials, 5 (6), 6783-6796.
- Santosh, C.R., Gowrishankar, R., and Shailesh Srivastava. (2022). Harmonic Mode-locked Noise-like Pulses Under a Q-Switched Envelope in an Erbium Doped All-fiber Ring Laser. *Applied Optics*, 61(25), 7354, DOI: https://doi.org/10.1364/AO.468037.
- Sai Kumar, C., Paramesh, G., Vijay Sai, K., and Gowrishankar, R. (2022). Gamma Radiation Shielding Studies on Highly Dense Barium Bismuth Borate Glasses. Int. *J. Appl. Glass Sci.*, 13(2), 211-222. DOI: https://doi.org/10.1111/ijag.16554.
- Sood, P.C., and Gowrishankar, R. (2022). Low-lying Level Structures in the Transuranic n-rich Z = 93 nuclei 243Np and 244Np, *Phy. Rev. C* 106, 054307. <u>DOI: 10.1103/</u> PhysRevC.106.054307.



Conference Presentations and Proceedings

Biosciences

- B Anusha and B Andallu. Inhibition of Proliferation of Human Osteosarcoma Cell Line by Ajwain Plant extract, National Conference on Recent Advances in Microbial Technology and Allied Sciences, (NCRAMTAS-2023), Department of Microbiology and Biochemistry, UGC-SAP DRS, Sri Padmavathi Mahila Vishvavidhyalam, Tirupathi, (March 15-16, 2023).
- V Sharma and A S Vishwanathan. Unlocking the Multifaceted Ethnobotanical Potential of Darjeeling and Kalimpong Hills, *International Conference on Science* for Survival: To Explore the Unexplored Dimensions, Government College for Women, Udhampur, Jammu and Kashmir, (February 11-12, 2023).
- S S Mahapatra and A S Vishwanathan. Bacterial Activity
 as an Alternate Measure of Bacterial Load in Domestic
 Wastewater Treatment, 13th NABS-National Conference
 on Current Perspectives for Sustainable Development
 in Life Sciences, Environment, and Agriculture, Periyar
 University, Salem and National Academy of Biological
 Sciences, Salem (January 23-25, 2023).
- V M Datta Darshan, Venketesh Sivaramakrishnan, K Arvind Kumar. Structural Systems Biology Approach Elucidate the Functional Implications of SNPs in Exon Junction Complex Interaction Network, 45th All India Cell Biology Conference & International Symposium on Biology of Development and Disease, The Indian Cell Biology Society, Department of Zoology, Banaras Hindu University, Varanasi, UP (January 20-22, 2023).
- R Saiswaroop, P S Akhil, Kanikaram Sai Phalguna, Sai Sanwid Pradhan, Meghana Manjunath, K Raksha Rao, Rajesh Babu Dandamudi, Sai Krishna Srimadh Bhagavatham, Sujith Kumar Pulukool, Sriram Rathnakumar, Sai Kocherlakotaa, Ashish Pargaonkar, Bibha Choudhary, and Venketesh Sivaramakrishnan. Integrated Omic Analysis Delineates Pathways Modulating Toxic TDP-43 Protein Aggregates in Amyotrophic Lateral Sclerosis, 45th All India Cell Biology Conference & International Symposium on Biology of Development and Disease, Indian Cell Biology Society, Department of Zoology, Banaras Hindu University, Varanasi, UP (January 20-22, 2023).
- Sai Sanwid Pradhan, S M Thota, R Sai Swaroop, K Sai Phalguna, V Tiwari, E V Joshy, C Bibha, and S Venketesh. Genetic Variations and Metabolomic Pathways as Modifiers of Huntington's Disease, *International Conference on Genetics, Department of Genetics*, Andhra University, Visakhapatnam (2023).
- Sai Sanwid Pradhan, S M Thota, R Sai Swaroop, K Sai Phalguna, V Tiwari, E V Joshy, C Bibha, and S Venketesh. Genetic and Metabolomic Factors as Modifiers of Huntington's Disease, *International NMRS Conference* 2023, Structural Biology, IISER Berhampur, Berhampur (2023).

- Sai Sanwid Pradhan, Thota SM, R Sai Swaroop, K Sai Phalguna, V Tiwari, E V Joshy, C Bibha, and S Venketesh. Genetic Variations and Metabolomic Factors as Modifiers of Huntington's Disease, *National conference NIPER*, Department of Biotech, NIPER Lucknow, Lucknow (2023).
- Sudam Bhoi, K Sathya Sai Kiran, Naresh Krishna
 Narasimha. Subunit Heterogeneity of Hemocyanin from
 Tachypleus gigas, 43rd Annual Conference of Indian
 Association of Biomedical Scientists and International
 Conference on an Integrative Approach Towards
 Health Protection and Health Promotion, Faculty of
 Health & Wellness, Sri Sri College of Ayurvedic Science
 & Research Hospital, Sri Sri University, Cuttack, Odisha
 (December 19-21, 2022).
- R Saiswaroop. Challenges and Opportunities in the Management of Neurological Disorders, *National Conference*, Department of Biotech. NIPER-Guwahati, Guwahati (December 07, 2022).
- K Sathya Sai Kiran, Sudam Bhoi, Sanidhya Bobde, Vamshi M. Katukuri, Naresh Krishna Narasimha. Ritterazines as Drug-like Lead Compounds Targeting Rdrp of RNA Viruses with Special Emphasis on SARS Cov-2, *International Conference on Drug Discovery - 2022 (ICDD-2022)*, BITS Pilani, K. K. Birla Goa Campus, Goa (November 10-11, 2022).
- B Anusha and B Andallu. Assessment of Antidiabetic and Anti hemolytic activities of Aerial Parts of Trachyspermum ammi L, *International conference on Start Herb: Journey from Innovation to Entrepreneurship in Herbals*, DY Patil Deemed to be University, School of Pharmacy, Navi Mumbai and Association of Pharmaceutical Research, Navi Mumbai (Virtual) (October 14-15,2022).

Chemistry

- D P Patnana, B P Chandra, P Chaudhary, B Sinha, and V Sinha. Investigation of Endocrine Disruptor-PAEs and Carcinogenic-PAHs Bound to Ambient Fine Particulate Matter Over Northwest Indo-Gangetic Plain, *EGU General Assembly 2023*, No. EGU23-4018., Copernicus, Vienna, Austria (April 24-28, 2023).
- B Sinha, H Hakkim, G Sharma, P Chaudhary, A Kumar, H Pawar, P B Chandra, and V Sinha. Can India Leapfrog into a Clean Air Future - Perspectives from Measurements, Source-Receptor Modelling and Emission Inventories, EGU General Assembly 2023, EGU23-8342, Copernicus, Vienna, Austria, (April 24-26, 2023).
- K V Seetarama Mani Chandrika and V Prathyusha.
 Exploring Natural Biopolymers as Potential Desalination
 Agents, *International Winter School on Frontiers in Materials Science*, School of Materials Science,
 International Centre for Materials Science and Sheikh



- Saqr Laboratory at Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru (December 05-09, 2022).
- Durga Prasad Patnana, Pooja Chaudhary, Baerbel Sinha, Vinayak Sinha, B P Chandra. A Novel Method for Simultaneous Determination of Paes & Pahs Bound to Ambient Fine Particulate Matter Using Liquid Chromatography - Mass Spectrometry and Health Risk Assessment in the Suburban City of North-West Indo-Gangetic Plain, *Asian Aerosol Conference* –2022, Taiwan Association for Aerosol Research and National Taiwan University, Paper ID: 29dd08, Taipei, Taiwan (June 12-16, 2022).

Education

- B Sai Soujanya Kumari and P Lavanya. Promoting Life Skills Through Value Integrated Constructivist Approach, in the *International Conference on Constructivism* in *Teaching and Learning in the Context of Formal* and *Distance Learning (ICCT FDL-2022)*, Directorate of Distance Education & School of Education, Pondicherry University (October 13-14, 2022).
- B Sai Soujanya Kumari and P Lavanya. Promoting Attitudinal Development Through Constructivism in Pedagogy of Biological Science - A Study in the 3rd Online/Offline Mega International Conference on



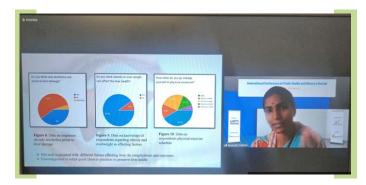
"Continuity, Consistency, and Innovation in Applied Sciences and Humanities, ICCIASH-2022", St. Martin's Engineering College, Telangana (September 16-17, 2022).

Food And Nutritional Sciences

 Kore Jahnavi, Yamuna Sagubandi, Sai Geetha Pyla and A Padmaja. Extraction and Estimation of *Hibiscus sabdariffa* Stalks as a Potential Source of Antioxidants, *National* Conference on Underutilized Food Resources: Nutrient

- **Composition, Value Addition, and Quality Assurance**, Department of Food Technology, Mizoram University, Aizawl, Mizoram, India (May 25-26, 2023).
- K K Sai Sruthi Shree and N Srividya. Bioprocessing Based Double Fortification of Traditional Indian Pigmented Rice Varieties to Address Iron and Zinc Deficiencies, *1st National Traditional Paddy Conference 2023*, Traditional Paddy Conference Council in association with Central University of Tamil Nadu (CUTN) and Tamil Nadu Agricultural University (TNAU), Thiruvarur (May 18-19, 2023).
- Shrijana Rasaily, Ashrita C Haldipur and N Srividya. Identification of Natural Inhibitors of SARS-CoV-2 and Inflammation in Pigmented Traditional Indian Rice Varieties: A Metabolomic, Data Screening and *In Silico* Approach", *1st National Traditional Paddy Conference* 2023, Traditional Paddy Conference Council in association with Central University of Tamil Nadu (CUTN) and Tamil Nadu Agricultural University (TNAU), Thiruvarur (May 18-19, 2023).
- J C Kavana and M Meera. Formulation, Development, Nutritional and Sensorial Attributes of Composite Millet Incorporated Gluten Free Bars with Walnut and Almonds as Value Addition for Post-Covid era, *International Conference on Public Health & Dietary Lifestyle*, (virtual mode), Universal Society of Food and Nutrition (USFN) (May10-11, 2023).
- Neharika Rai, Malla Vandana, Sura Mounika and Jhinuk Gupta. Detection of Hazardous Food Additives in Indian Packaged Pickles, *International Conference on Public Health & Dietary Lifestyle*, (virtual mode), Universal Society of Food and Nutrition (USFN) (May 10-11, 2023).
- A Srinidhi and Meera M. Evaluation of Physical, Nutritional and Sensorial Attributes of Flax Seed Incorporated Composite Millet Flour Cookies", *International Conference on Public Health & Dietary Lifestyle*, (virtual mode), Universal Society of Food and Nutrition (USFN) (May10-11, 2023).
- Amrita Shaw and Jhinuk Gupta. Different Fat Profiling Techniques Used for Food Quality Evaluation: A Review", International Conference on Public Health & Dietary Lifestyle, (virtual mode), Universal Society of Food and Nutrition (USFN) (May 10-11, 2023).
- B Sowjanya and M Meera. Formulation, Development and Acceptability Attributes Composite Millet Flour-Based Gluten Free Crackers with Amaranth as Value Addition for Post Covid Era", *International Conference on Public Health & Dietary Lifestyle*, (virtual mode), Universal Society of Food and Nutrition (USFN) (May10-11, 2023).
- Sparsh Sumnirom Subba and Araveti Sumana. Development and Validation of a Questionnaire Tool to Assess Knowledge, Attitude, and Practices Regarding Iron





Deficiency Anaemia Among Indian Adolescent Girls", *International Conference on Public Health & Dietary Lifestyle*, (virtual mode), Universal Society of Food and Nutrition (USFN) (May 10-11, 2023).

- Kesavani Netheti, Devaprabha Nair, M Madhumani, and A Sumana. A Study on Awareness of People on Knowledge of Liver Health, Diseases and Role on Diet", *International Conference on Public Health & Dietary Lifestyle*, (virtual mode), Universal Society of Food and Nutrition (USFN) (May 10-11, 2023).
- A Annapurna and B Andallu. Effect of Fermentation on the Extractability of Minerals and In Vitro Protein & Starch Digestibility of Italian Millet, *National Conference on* 'Millets-The Super Food. A Sustainable Path Towards Food and Nutritional Security, Department of Food and Nutritional Sciences, Sri Sathya Sai Institute of Higher Learning, Anantapur (March 24-25, 2023).
- B Andallu. "Phytochemicals and Bioactivity: Special Reference to Spices", *UGC SAP-sponsored National* Conference on Recent Advances in Microbial Technology and Allied Sciences (NCRAMTAS-2023), Department of Microbiology, Sri Padmavati Mahila Visva Vidyalayam, Tirupathi (March 15-16, 2023).
- S Sai Dharshini and M Meera. Formulation and Assessment of Millet-Based Gluten Free Snack Box for Diabetes Management - A Response Surface Analysis, 7th International Diabetes Summit 2023, Chellaram Foundation Diabetes Research, Pune (March 10-12, 2023).
- B Andallu. Antidiabetic Efficacy of Mulberry (Morus indica L.) Leaves: Mode of Action in Streptozotocin-diabetic Rats, 7th International Diabetes Summit 2023, Chellaram Foundation Diabetes Research, Pune (March 10-12, 2023).
- B Andallu and C U Rajeswari. In vitro and in vivo Evaluation of Coriander Seeds (*Cariandrum sativum* L.) for Antihyperglycemic, Antioxidant, and Hypolipidemic Effects, *7th International Diabetes Summit 2023*, Chellaram Foundation Diabetes Research, Pune (March 10-12, 2023).
- B Sai Suruthi, N Saiharini and A Padmaja. Utilization of Vegetable Waste in Soup Mix Formulation, *International* Conference on Innovations in Food and Beverage

- **Technology for Sustainable Future**, College of Food and Dairy Technology, Koduvalli, Chennai (January 04-06, 2023).
- M Sai Veena, V Dharani, K Chaitanya Bhagavathi, and M Meera. Formulation and Development of Traditional Breakfast Recipes of North East India with Composite Millet Flour and Soy Flour as Value Addition for Covid Era, 54th Annual Conference of Nutrition Society of India on Sustainable Healthy Diets-health for All, ICMR-National Institute of Nutrition, Hyderabad, Telangana, India (December 22-23, 2022).
- B S S S Sravanika, M Nithya, S Shnea, S Sanjana, P Alisha, and M Srijaya. Organic Fruit and Vegetable Products:
 Contribution Towards Healthier Market Shift, *National Symposium on "Eat Well Live Well"*, as a part of National Nutrition Week Celebrations-2022, Gitam School of Sciences, Hyderabad (September 02, 2022).
- BSSS Sravanika, M Nithya, S Shnea, S Sanjana, P Alisha, and M Srijaya. Review on Organic Foods: Potentially Healthy or a Market Scheme? *National Symposium on "Eat Well Live Well"*, as a part of National Nutrition Week Celebrations-2022, Gitam School of Sciences, Hyderabad (September 02, 2022).
- K K Sai Sruthi Shree and N Srividya. XRF Mineral Profiling Identifies Potential of Indian Pigmented Rice Varieties to Address Mineral Malnutrition, *International Congress on Nutrition and Health*, Science Society, Bangalore (July 02, 2022)

Languages & Literature

English

- Pratiksha Pradhan and R Vijayalekshmi. Ecocultural Keystones and Place-centrism in Selected Lepcha Folktales, IACLALS Annual International Conference, IACLALS (Indian Association for Commonwealth Literature and Language Studies) (April 27, 2023).
- Sathyapriya Darshini and P L Rani. Indian Mythology:
 The Pattnaik Perspective, *Lit-Treat Edition III on Mythological Narratives in Indian English Literature*,
 Department of Languages and Literature English, Sri
 Sathya Sai Institute of Higher Learning, Anantapur (April 20, 2023).
- Yukti Bhardwaj and Maitali Khanna. From Shiva to
 Neelkanth: Tracing the Journey of Transformation in
 Shiva Trilogy, *Lit-Treat Edition III on Mythological Narratives in Indian English Literature*, conducted by
 the Department of Languages and Literature English, Sri
 Sathya Sai Institute of Higher Learning, Puttaparthi. (April
 20, 2023).
- Aditi Kumari and N Vani Sri. The Sita(s) in the Selected Mythological Narratives of Amish Tripathi and



Chitra Banerjee Divakaruni. *Lit-Treat Edition III on Mythological Narratives in Indian English Literature*, conducted by the Department of Languages and Literature - English, Sri Sathya Sai Institute of Higher Learning, Puttaparthi (April 20, 2023).

- C Priyamvada and Maitali Khanna. Reading Toru Dutt's
 "Lakshman" and "Sita" Through the Lens of Rasa Theory,
 Lit-Treat Edition III on Mythological Narratives in
 Indian English Literature, Department of Languages
 and Literature English, Sri Sathya Sai Institute of Higher
 Learning, Anantapur (April 20, 2023).
- S Lakshmi Menon. Resurrecting the Romantic Self in a Post-Human World: A Phenomenological Reading of Some Romantic Poems", *International Conference MELANGE* 2023 on "Beyond Boundaries: Reading Literature and Culture in a Post-Human Society", Department of English and Cultural Studies, CHRIST (Deemed-to-be University), Central Campus, Bengaluru (March 30, 2023).
- Aruna Kumar Behera. 2nd International Virtual Conference on Generational Gender Perspectives in Literature and Media - G2LM'23, SRM Institute of Science & Technology, Tiruchirappalli (March 23, 2023).
- Megha Santhosh and P L Rani. Transgenerational Trauma in The Far Field, *Literary and Language Studies in New Millenium*, Loyola College, Chennai (March 09-10, 2023).
- Lekshmi Chandra and P L Rani. Palestinian Partition
 Memory in Barghouti's I Was Born There, I Was Born Here,
 Literary and Language Studies in New Millennium,
 Loyola College, Chennai (March 09-10, 2023).
- Sathyapriya Darshini and P L Rani. Exploring the Possibility
 of Integration: MAXQDA Use for Critical Discourse Analysis,
 National Seminar on Emerging Perspectives in English
 Language, Literature and Culture, P.G. Department of
 English, Dwaraka Doss Goverdhan Doss Vaishnav College,
 Chennai (February 24, 2023).
- Aditi and N Vani Sri. A Comparative Analysis of the Protagonist in Amish's Sita: Warrior of Mithila and Chitra Banerjee Divakaruni's The Forest of Enchantments, National Seminar on Emerging Perspectives in English Language, Literature and Culture, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Prashanti and N Vani Sri. A Linguistic Analysis of Selected Advertisements, *National Seminar on Emerging Perspectives in English Language, Literature and Culture*, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Dikshya Chettri and R Vijayalekshmi. Female
 Bildungsroman in Immigrant Fiction: Gender and Genre in
 Brick Lane, National Seminar on Emerging Perspectives

- *in English Language, Literature and Culture*, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Shruti Sayantani Behera and Maitali Khanna. 'Lamia' as a Symbol of Eco-connectivity: Exploring Organic Interaction Among the Mythological Characters in Keats' 'Lamia', National Seminar on Emerging Perspectives in English Language, Literature and Culture, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Yukti Bharadwaj and Maitali Khanna. Tinker Bell and the Legend of the Never Heard Beast: An Anthropocentric Approach, *National Seminar on Emerging Perspectives* in English Language, Literature and Culture, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Shivapriya Seetharaman and Maitali Khanna. The Lord of the Flies: A Deep Ecological Perspective, *National Seminar on Emerging Perspectives in English Language, Literature and Culture*, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Meghana Srinivas Mandalappu and B Sai Harshita. Disney's Cultural Fortress: Understanding its Social and Cultural Impact, *National Seminar on Emerging Perspectives* in English Language, Literature and Culture, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Yadha Lama and R M Aarthi. "Ocean as a Muse:
 Interpretation of Select English Songs", National Seminar on Emerging Perspectives in English Language,
 Literature and Culture, P.G. Department of English,
 Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- Pem Doma Sherpa and R M Aarthi. An Eco-critical Reading of Thomas Gray's "Elegy Written in a Country Churchyard", National Seminar on Emerging Perspectives in English Language, Literature and Culture, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).
- R Sai Chandana and B Sai Harshita. An Eco-critical Reading
 of Lucca', *National Seminar on Emerging Perspectives*in English Language, Literature and Culture, P.G.
 Department of English, Dwaraka Doss Goverdhan Doss
 Vaishnav College, Chennai (February 24, 2023).
- Deepanjali Pradhan and Sai Harshita. The Glass Menagerie as a Memory Play Through a Psychoanalytic Approach.
 National Seminar on Emerging Perspectives in English Language, Literature and Culture, P.G. Department of English, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai (February 24, 2023).