KEERTHANA A.

PH.D. SCHOLAR (ENTOMOLOGY)
TNAU, COIMBATORE

Keerthana A. is currently pursuing her doctoral programme in Entomology on "Investigating the insect gut microbial communities for plastic degradation" under the guidance of Dr. V. Balasubramani, Professor Agricultural Entomology & Controller of Examinations, TNAU, Coimbatore. She did her masters from Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar and research on "Morpho-molecular characterization and assessing the effect of sowing time on aphid incidence in wheat" under the guidance of Dr. M. S. Sai Reddy, Assistant Professor, RPCAU, Bihar. She had identified the six aphid species in wheat through molecular characterization and resulted that aphid populations were more abundant on early -sown wheat and decreased with delayed sowing dates which are the key outcomes of her master research. She shared the expected outcome of her current research work that characterization of plastic degradation and identification of key microbial communities in *Galleria mellonella* and *Corcyra cephalonica* larval gut and generation of transcriptomic data highlighting the genes and metabolic pathways involved in plastic degradation. She emphasized that it will provide eco-friendly solutions for mitigating plastic pollution through microbial or enzyme-based approaches. She detailed her interest in entomology that hands-on experiences in labs and fieldwork deepened her curiosity, inspiring her to pursue research that combines understanding insect behavior with solving real-world challenges. She was granted JRF and SRF scholarship in her master and doctoral programmes. She strongly stated that she wishes to pursue postdoctoral research to deepen her expertise and contribute to innovative advancements in her field after completing Ph.D. programme and her long-term goal is to establish a career in research, making meaningful contributions to science and agriculture. She had published several research papers, reviews, popular articles etc. with respect to entomology.

VIVEK ADHIKARI

PH.D. SCHOLAR (ENTOMOLOGY)
IARI-CICR, NAGPUR

Vivek Adhikari is doing his doctoral research on "Simulating cotton yield loss by coupling pest damage with crop growth model" under the guidance of Dr. Babasaheb B. Fand, Senior scientist, ICAR-CICR, Nagpur. He did his masters from Anand Agricultural university, Anand, Gujarat and research on "Bionomics of lesser grain borer, *Rhyzopertha dominica* Fabricius and its management through nano-emulsions in stored wheat" under the guidance of Dr. M.V. Dabhi, Assistant Professor, AAU, Anand. He enlisted the key outcomes of his master research such as GW 513 and GW 1 which are the resistant wheat varieties exhibited the least damage to *R. dominica*, neem oil and karanj oil nano-emulsions were the most effective significantly outperforming conventional oils and nano-emulsions reduced population growth of R. dominica and germination loss of wheat significantly compared to oils, with neem oil nano-emulsion which had a uniform particle size and better efficacy as grain protectants, demonstrating superior pest control and seed preservation. He shared the memories during his master research that "During my M.Sc. research, I experienced several remarkable and memorable moments that deepened my understanding and passion for science. One of the most fascinating discoveries was observing how oil transforms into an emulsion and, through ultrasonication, the particle size is downscaled to form nanoparticles. Witnessing this process firsthand was truly captivating, and I was amazed to realize that nano-emulsions outperform regular emulsions in terms of functionality." He shared the insect pest and disease photographic data with Cropmint (Farmitopia Pvt. Ltd.), supporting the development of a pest detection tool. These experiences solidified my passion for entomology and motivated him to pursue it for his higher studies. It made the remarkable interest in the field of Entomology. He secured the ICAR NTS scholarship in his UG and PG programmes followed by IARI scholarship in his doctoral programme. He had received the Best poster award at 1st Entomology Students Conclave (ESC) by Entomological Society of India (ESI) in 2024. Interestingly, he has Instagram page "Insectagram_am" and YouTube channel "Entomo communication" about red ants. Besides, he is very much interested in insect photography.

SANGEETA DASH

PH.D. SCHOLAR (ENTOMOLOGY)
ICAR-IARI, NEW DELHI

Sangeeta Dash is presently pursuing her Ph.D. in Entomology from ICAR-IARI, Pusa Campus, New Delhi. Inspired by her teachers at OUAT, Bhuvaneswar where she completed her Bachelors, she developed a keen interest in the field of entomology, which offered her a chance to explore an incredibly diverse and essential part of the natural world. She completed her Masters in Agricultural Entomology from University of Agricultural Sciences, GKVK, Bengaluru, where she worked on mango fruit fly, *Bactrocera dorsalis* for the validation of suitable genetic loci as targets for genetic population control using CRISPR/CAS9 technology. Her research resulted in the successful restriction of yellow gene in *B. dorsalis*. Currently, she carries out her doctoral research under the guidance of Dr. Amalendu Ghosh, Senior scientist (Entomology), Division of Plant Pathology, ICAR-IARI, Pusa campus. Her research focuses on functional validation of key genes in the whitefly, *Bemisia tabaci* associated with begomo-virus transmission using the RNAi technology and in evaluating the spray-induced gene silencing for the management of whitefly begomo-virus complex. Silencing of key genes can induce mortality and impair the virus transmission by *B. tabaci*. Further, conjugating the dsRNA with regenerative polymer can improve the environmental stability of dsRNA for the better application of RNAi in pest management. Her academic achievements include securing ICAR-JRF fellowship (AIR-10) during her M.Sc. and ICAR-SRF fellowship (AIR-11) and ASRB- NET during her Ph.D. program. Her publications include several research, review and popular articles and book chapters. Besides her interest in research, she finds strength and peace in dancing, especially all forms of Indian classical dance. Sangeeta aspires to become a scientist, to continue contributing to the research field of entomology.

CHANDANA C R

PH.D. SCHOLAR (ENTOMOLOGY)
UAS, RAICHUR

Chandana C R, a Ph.D. scholar (Entomology) from University of Agricultural Sciences, Raichur has always been fascinated by the intricate relationship between insects and environment. Her interest in the field of entomology stems from its incredible relevance to agriculture, ecology and human wellbeing. The potential to contribute to sustainable agricultural practices and environmental conservation has solidified her passion for the field of entomology. She has completed her M.Sc. degree from Assam Agricultural University where her research led to successful biosynthesis of silver nanoparticles from Polygonum hydropiper which when evaluated for its efficacy showed significant control against major insect storage pests. She recalls witnessing the transformation of oil to nanoparticles through the process of ultrasonication for the first time and describes it as one of most memorable moments during her days of research. At present she is pursuing her doctoral research on the topic of mining and expression analysis of ABC transporters for their role in insecticide resistance in legume pod borer, *Maruca vitrata*. Her research is being conducted in collaboration with ICAR-National Bureau of Agricultural Insect Resources (NBAIR) under the guidance of Dr. Sushila Nadagouda (Assistant Professor, UAS, Raichur) and Dr. M. Mohan (Principal Scientist, Division of Genomic Resources, ICAR-NBAIR). Besides, providing insights into the role of ABC transporters in insecticide resistance, she also aims to utilize RNAi technology for the management of *M. vitrata*. The outcomes of her research can pave the way for developing resistant cultivars and novel insecticides. The genomic data obtained can further be used in toxicological and physiological studies for the development of effective pest management strategies. Chandana has been awarded, Rastrapati guide (The Bharat Scouts and Guides, Government of India) in 2014, best poster presentation award at the International Conference on Plant Protection in Horticulture (ICPHM) and Entomology Students Conclave (ESC) in 2024 and has cleared ASRB NET. Currently, she is awarded University Merit Scholarship by UAS, Raichur. Besides her studies, she enjoys reading literature, exploring nature and engaging in creative activities like writing and painting. After receiving her doctorate, Chandana plans to pursue postdoctoral research to deepen her knowledge and contribute to innovative advancement in the field of entomology.

SABA TANVEER

PH.D. SCHOLAR (ENTOMOLOGY)
GBPUA&T PANTNAGAR

Saba Tanveer is doing her doctoral research on "Eco-Friendly Strategies for Pigeon Pea Pests management: Harnessing Habitat Manipulation strategy" under the guidance of Dr. Ruchira Tiwari (Professor), GBPUA&T Pantnagar. She did her masters from GBPUA&T Pantnagar and research on "Study on the dynamics of Insect Pests of Sugarcane in the Tarai region of Uttarakhand and evaluation of various Sugarcane germplasm against major insect pests" under the guidance of Dr. R. P. Maurya (Associate Professor), GBPUA&T Pantnagar. She enlisted the key outcomes of her master's research, including the finding that the germplasm CoPant 12221 was the least susceptible to the borer complex and sucking pests of Sugarcane. Additionally, the study identified that host plant resistance, characterized by specific biophysical and biochemical traits, contributed to resistance. Germplasm exhibiting these traits showed narrower leaf width, fewer leaves, wider leaf angle, higher antioxidant and phenol content, as well as reduced total carbohydrate content, all of which resulted in decreased insect pest infestation of sugarcane. The expected outcomes and practical utility of her current research are to develop an Integrated Pest Management (IPM) package that incorporates habitat manipulation, the use of biopesticides and novel insecticides, as well as fostering host plant resistance by screening pigeon pea germplasm accessions for their biochemical and biophysical characteristics.She reflected on her experiences during her master's research, saying, "Throughout my M.Sc. research, I had several unforgettable and significant moments that enhanced my understanding and passion for science. One of the most fascinating aspects was working with the egg parasitoid *Cheiloneurus* pyrillae and the nymphal adult parasitoid *Fulgoraecea melanoleuca* of *Pyrilla perpusilla*." Since the first year of her undergraduate program, she has been deeply fascinated by entomology, with a particular interest in working with live insects which has become her passion.In addition, she has a strong interest in playing badminton and chess, as well as writing and reciting poems in both English and Urdu.

MADEVU SAI KUMAR

PH.D. SCHOLAR (ENTOMOLOGY)
ANGRAU, BAPATLA

Madevu Sai Kumar is currently pursuing his doctoral programme in Entomology on "Studies on floral calendar and evaluation of various pollen substitutes on the growth and development of Apis mellifera L. (Hymenoptera: Apidae) " under the guidance of Dr. S. R. Koteswara Rao Professor & Head, Department of Entomology, Acharya N.G. Ranga Agricultural University, Bapatla. He did his masters from College of Agriculture, Assam Agricultural University, Jorhat and research on "Exploration of Jasmonic Acid induced resistance in Chilli (*Capsicum annuum* Linnaeus) against Aphid (*Aphis gossypii* Glover)," under the guidance of Dr. Shimantini Borkataki (Assistant Professor) Assam Agricultural University, Jorhat. The results of his master research clearly demonstrate that the exogenous application of jasmonic acid (JA @ 315 ppm) twice, once at 20 days after transplanting and again at 60 days after transplanting, holds potential for further exploration in the commercial cultivation of chilli to boost yield and production. Additionally, jasmonic acid (JA@ 210 ppm) can be used to enhance resistance against insect pest attacks. He shared the expected outcome of his current research work that during periods of scarcity, these pollen substitutes will serve as an additional supplement for *Apis mellifera*, supporting their growth and the development of brood characteristics. He emphasized that a study on the floral calendar will provide insight into which flowering plants are suitable near apiculture boxes and which ones are good sources of nectar and pollen. He expressed his enthusiasm for entomology, emphasizing how hands-on lab and fieldwork experiences sparked his curiosity and motivated him to explore research that integrates insect behavior studies with addressing practical challenges. He was granted Non JRF fellowship from ICAR in master's degree programme. His long-term aspiration is to build a career in research, contributing significantly to science and agriculture, with the aim of becoming an ARS Scientist.