About the Authors of Invited Papers

Dr. Asim Biswas is a Professor and Canada Research Chair, and serves as the OAC Chair in Soils and Precision Agriculture in the School of Environmental Sciences at the University of Guelph, Canada. He previously worked as an Environmental Research Scientist and Post-Doctoral Fellow at the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia. In 2013, he joined the Department of Natural Resource Sciences at McGill University as an Assistant Professor, and in 2016, he moved to the University of Guelph. Dr. Biswas is a renowned scientist specializing in data-driven sustainable soil management. His research focuses on enhancing the productivity and resilience of land-based agri-food production systems while ensuring environmental sustainability. He emphasizes the use of scientific data and advanced sensing technologies to optimize soil management practices and minimize negative environmental impacts. He is currently a Member of the College of the Royal Society of Canada and Chair of the Proximal Soil Sensing Working Group of the International Union of Soil Sciences (IUSS). Previously, he served as President of the Canadian Society of Soil Science and Chair of the Soil Physics and Hydrology Division of the Soil Science Society of America.

Dr. Jajati Mandal is presently working as University Fellow/Lecturer at the Department of Geography and Environmental Management, School of Science Engineering and Environment at University of Salford, Manchester, United Kingdom. He was the recipient of Netaji Subhas International Fellowship from the Indian Council of Agricultural Research for his PhD. His doctoral findings garnered significant international attention, leading to a collaboration with CSIRO's Environment Unit in Adelaide, Australia, where he conducted further research as a visiting researcher. Over the past 12 years, he has concentrated his research on the behaviour, fate, and impacts of heavy metal, metalloid and PFAS contamination in agricultural systems and the environment. He worked as Assistant Professor-cum-Junior Scientist at the Department of Soil Science and Agricultural Chemistry, Bihar Agricultural University, Sabour for 10 years. He was a recipient of a Young Scientist Award from the Indian Chemical Society in Environmental Chemistry. He has authored 62 journal articles, 1 edited book and 4 book chapter contributions, having a google scholar h-index 21 and i10-index of 38. At present he his serving as Associate Editor for the journal of *Environment Geochemistry and Health*; as editorial board member for *BMC Environmental Science* and Associate Editor for *Journal of Crop and Weed*. Additionally, Jajati has developed R packages '*Inquilab*' and '*AdsorpR*' to understand the dissipation kinetics, and Adsorption isotherms and also have a patent on A Multi-Nutrient Nanoclay Polymer Composite (MNCPC) and process for synthesis of the same.

Dr. Sudip Sengupta is working as an Assistant Professor at Swami Vivekananda University (SVU), where he is actively engaged in teaching, research, and academic mentoring for the last 4.5 years.

His scholarly work is primarily focused on arsenic-related research, with particular emphasis on its occurrence, behavior, and impacts within soil-plant-environment systems. Dr. Sengupta has an extensive academic record, having authored 68 scholarly publications across all categories, including 8 books and 22 book chapters, and holds 13 patents, reflecting his strong engagement in both fundamental and applied research. His contributions have been widely recognized, with an h-index of 22, indicating significant research impact and citation visibility within the scientific community. A consistent academic achiever, Dr. Sengupta has been awarded six gold medals for excellence during his undergraduate and postgraduate studies. In addition to his research and teaching responsibilities, he actively contributes to scholarly publishing as a reviewer and editorial board member of five international journals, supporting the advancement of high-quality scientific research. His work reflects a strong commitment to addressing pressing environmental challenges, particularly those related to toxic element contamination and sustainable resource management.

Prof. Kallol Bhattacharyya is a distinguished Professor in the Department of Agricultural Chemistry & Soil Science at Bidhan Chandra Krishi Viswavidyalaya (BCKV), Mohanpur, West Bengal, India. He holds a Ph.D. and has an extensive record of teaching, research, and scholarly contributions in soil science and agricultural chemistry. Dr. Bhattacharyya's research portfolio spans soil nutrient dynamics, water-nutrient interactions, arsenic contamination in soils and crops, and sustainable nutrient management strategies under subtropical Indian conditions. He has published over 70 articles and book chapters on soil fertility, crop nutrient uptake, and environmental quality in reputable scientific journals and has guided students in both fundamental and applied aspects of soil and agricultural sciences. His work focuses on addressing key agronomic challenges such as optimizing soil fertility for enhanced crop productivity and mitigating soil and irrigation water contamination, including arsenic exposure risks in rice and other staple crops. Prof. Bhattacharyya is actively involved in ICAR-supported research networks and interdisciplinary collaborations, bringing rigorous experimental design and data-driven insights to crop-soil-environment systems. Through his contributions to field experiments, soil chemistry studies, and integrated nutrient management, he has significantly advanced the understanding of soil health and resource-use efficiency in Eastern Indian agroecosystems.

Prof. Hirak Banerjee has been associated with Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya (BCKV), West Bengal during last 20 years. At the beginning of his professional career, he served Nadia Krishi Vigyan Kendra, West Bengal as Subject Matter Specialist (Agronomy). Then he joined as Assistant Professor in the Department of Agronomy, BCKV, West Bengal. Presently, Dr. Banerjee is working in the capacity of In-charge, Regional Research Station (Coastal Saline Zone), BCKV, Kakdwip, South 24 Parganas, West Bengal. He has been actively involved in teaching, research and extension services for the last 20 years. His

research interest lies on agronomy, particularly in crop science, weed science, agroforestry systems and coastal agriculture. He has been the proud recipient of 'Young Scientist' award 2013 and 'Fellow' award 2018 from Crop and Weed Science Society (CWSS), West Bengal. So far 4 M.Sc. (Ag.) and 5 Ph.D students was guided by him for the award of their degrees. Till date, he has published 166 research papers in various National and International journals. He has already written three (03) books as sole author and five (05) books as co-author on various aspects of Agriculture.

Dr. Debasis Golui is currently serving as Scientist (Soil Science) at the ICAR-Indian Agricultural Research Institute (IARI), New Delhi. He completed his master's and Ph.D. degrees from ICAR-Indian Agricultural Research Institute, New Delhi, India. He is a well-known scientist in the field of risk assessment and remediation of metal- and metalloid-polluted soils. While working in this area, he developed a risk assessment protocol for metal-polluted soils using a modeling framework and established the safe limits of extractable metals and metalloids in soil in relation to human health hazards. He also received the prestigious Core Research Grant from the Department of Science and Technology, India. He has over 50 peer reviewed research publications in journals of international repute, and he has been honored by several awards, including Fulbright Nehru Post-Doctoral Research Fellowships, ISCA Young Scientist Award, Golden Jubilee Commemoration Young Scientist Award of ISSS, IARI Merit Medal for research contributions.

Dr. Pratap Bhattacharyya is currently working as a Head & Principal Scientist at ICAR-CRRI, Cuttack, Odisha. His fields of specialization are climate change, carbon dynamics, GHGs emission-mitigation, resource conservation technologies and microbial diversity in rice. He has given a unique concept that lowland rice ecology is a net carbon sink by using advanced Eddy covariance techniques. He identified predominant pathways of methanogenesis and methanotrophy are acetoclastic and serine, respectively through whole genome metagenomic approach. The spatial and temporal variations of GHGs emission in mangrove-rice ecology in Sundarbans are quantified by him. The new concept of plant-mediated methane emission in rice was given by him. As a team he developed customized leaf colour chart for real time nitrogen management in rice that commercialized and adapted in five states in India. Three climate-resilient technologies having the potential of GHGs emission-mitigation, and energy saving are developed and validated by his team. He characterized the rice-straw based on biochemical, FTIR, SEM properties and grouped them for best alternative uses, like, bioethanol, biochar, mushroom production, and composting. He is Fellow of the National Academy of Sciences (FNASc); National Academy of Agricultural Sciences, India (FNAAS); Fellow of West Bengal of Academy of Science and Technology (WAST); Fellow of IASWC; Fellow of ARRW; got ICAR-LBS young scientist award; Dr K J Tejwani award by IASWC; Mosaic Foundation award; Certificate of Excellence by University of Georgia, USA and also an ICAR National

Fellow. He has published more than 150 research articles including research papers, books, book chapters, and popular articles. He has guided 5 PhD and 8 M.Sc students.

Dr. Somsubhra Chakraborty is an Associate Professor of Soil Science in the Agricultural and Food Engineering Department at IIT Kharagpur and is internationally recognized for his pioneering work in proximal soil sensing, digital soil mapping, and AI-driven precision agriculture. A recipient of the Faculty Excellence Award at IIT Kharagpur and featured among the world's top 2% scientists, he has published extensively with over 6,300 citations (h-index 45) and serves on the editorial boards of leading journals such as *Geoderma*, *Nature Scientific Reports*, and *Sensors*. He has edited major international books, including *Unlocking the Secrets of Soil*, and holds four granted U.S. patents on portable soil and liquid analyzers, along with several Indian patent applications and software copyrights. Dr. Chakraborty has led and collaborated on numerous national and international projects funded by ISRO, DST, ICAR, and Indo-German programs, and maintains global partnerships with institutions across the USA, Brazil, Germany, Spain, Egypt, Italy, Romania, and Canada.

Beyond research, he contributes actively to institutional leadership at IIT Kharagpur as Chairperson of the Campus Green Cover and Commercial Establishment Licensing Committee, while mentoring numerous Ph.D. and M.Tech. scholars and advancing education in AI and sensor technologies for sustainable land management.

Mani Deshmukh is a former M. Tech. student of Dr. Chakraborty, while **Ushasi Dam** and **Ayan Das** are currently pursuing their Ph.D. degrees under his guidance. **Dr. Kaushik Majumdar** is currently the in-charge of the Soil Testing Laboratory, Habra, West Bengal.

Dr. Sudhanshu Singh is a globally recognized agricultural scientist with over three decades of distinguished experience in agronomy, rice science, climate-resilient farming systems, and agricultural extension. His research portfolio encompasses stress-tolerant rice varieties (STRVs), direct-seeded rice (DSR), mechanized rice–wheat systems, greenhouse gas mitigation, and seed system strengthening, including the *Seeds Without Borders* initiative. His doctoral research at the International Rice Research Institute (IRRI), Philippines, made significant contributions to understanding the physiological basis of flood tolerance associated with the Sub1 gene under complete submergence. During his postdoctoral tenure at IRRI, he focused on developing and disseminating "best-bet" management practices for stress-prone ecologies, with particular emphasis on tailoring agronomic practices for STRVs. Dr. Singh has successfully led several international, multi-institutional research projects in collaboration with NARES partners across South Asia, mobilizing substantial competitive funding from international agencies. His work has generated evidence-based management recommendations that influence national-level policies across South Asia and contribute to optimizing and enhancing the productivity of rice–wheat systems in stress-prone environments. He has

authored over 90 peer-reviewed publications and contributed to numerous books and book chapters. Additionally, he is a co-inventor of two farm implements and a co-developer of the rice variety '*Irabati*'. Currently, as Director of the IRRI South Asia Regional Centre (ISARC), Varanasi, he leads strategic rice research initiatives across South Asia and Africa through South–South collaboration. A recipient of numerous honors, including a Lifetime Achievement Award, Dr. Singh continues to mentor young scientists and engage with policymakers to advance resilient agri-food systems.

Dr. Malay Kumar Bhowmick serves as a Rice Agronomist at the Rice Research Station, Chinsurah, West Bengal. With over 25 years of dedicated service, he has made remarkable contributions to research, teaching, and agricultural extension. His professional journey began as an Assistant Teacher in Agriculture under the West Bengal School Service, followed by his role as an Agricultural Development Officer (Soil Conservation) in the West Bengal Agricultural Service (Administrative). He later advanced to the Research Cadre of the West Bengal Agricultural Service, where he played pivotal roles at several institutions: the Pulses and Oilseeds Research Station (Berhampore) for more than five years, the Rice Research Station (Chinsurah) for over twelve years, the Directorate of Agriculture (HQ) for about three years, and the IRRI South Asia Regional Centre (Varanasi) for nearly three years. Throughout his career, Dr. Bhowmick has exemplified integrity, commitment, and collaboration, building linkages with leading state, national, and international research institutions. His expertise in Crop Husbandry and Weed Science has been well recognized by a number of professional societies across India. Born in a farming family, he has remained deeply committed to serving rural farmers and advancing good agricultural practices in rice-based cropping systems across diverse geographies.

Debaditya Chattopadhyay completed his B.Sc. (Ag) degree in the year 2022 and M. Sc. (Ag.) in Plant Pathology (Gold Medalist) in 2024 from Bidhan Chandra Krishi Viswavidyalaya, Mohanpur. He worked on dynamics of diseases of lentil under different tillage and moisture conservation system. He also awarded ICAR-SRF during 2025.

Koustav Rudra is an Assistant Professor at the AI Department at the Indian Institute of Technology Kharagpur. Prior to that, he was an Assistant Professor of Computer Science and Engineering at the Indian Institute of Technology (ISM) Dhanbad. Earlier, he was a postdoctoral researcher at L3S Research Center, Leibniz University Hannover, and Northwestern University. He received his PhD from the Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur, India, in 2018. He works in the area of Responsible AI, Information Retrieval, Natural Language Processing, and AI for Societal Applications.

Dr. Ashis Roy Barman is serving as Assistant Professor in the Department of Plant Pathology, RRS (CSZ), BCKV, Kakdwip, South 24-Parganas, West Bengal. His areas of expertise include pathogen variability, molecular

mechanisms of host–pathogen interactions, and biocontrol of plant bacterial diseases using rhizospheric PGPRs. He obtained his Ph.D. in 2014 from the Department of Plant Pathology, BCKV, Mohanpur, Nadia. His current research focuses on alleviating plant stresses through nanoparticle-encapsulated PGPRs. He secured second position in the P.R. Verma Best Thesis Award (ISMPP, New Delhi) and first position in the Best Thesis Award (COBACAS, UBKV). He has received several best paper and poster awards and has guided two Ph.D. scholars. Dr. Barman has published over 40 research papers and contributed to PG practical manuals and two book chapters.

Dr. Subrata Dutta, Professor, Department of Plant Pathology, BCKV, has over 23 years of teaching and research experience in Plant Pathology at undergraduate and postgraduate levels. He served as a Plant Pathologist under the All India Coordinated Research Project (AICRP) on Vegetable Crops and possesses extensive expertise in diseases of vegetable crops, including their epidemiology and management. His current research focuses on plant disease forecasting, image-based disease detection, and mitigation of biotic and abiotic stresses using native PGPRs. Dr. Dutta obtained his M.Sc. and Ph.D. in Plant Pathology from IARI, New Delhi, and received the Sunity Bala Raychowdhury Award for the best Ph.D. thesis (2002). He was also conferred the P.P. Singhal Memorial 2nd Best PI Industries Award (2017). He is a fellow of the West Bengal Academy of Science and Technology, Kolkata; Society of Plant Protection Sciences, New Delhi; Indian Phytopathological Society, New Delhi and Indian Society of Mycology & Plant Pathology, Udaipur; Indian Mycological Society, Kolkata, besides being a member of several scientific bodies. He has guided eleven (11) Ph.D. and seventeen (17) M.Sc. students. He has published over 150 research papers, authored PG practical manuals, six book chapters, and one edited book, and successfully completed projects funded by DST, DBT, ICAR, and APN.

Dr. Kripabandhu Ghosh is an Associate Professor at the Department of Computational and Data Sciences, IISER Kolkata, West Bengal, India. He completed his Ph.D. from the Indian Statistical Institute, Kolkata, India, on “Information Retrieval in the Legal Domain”. He was an International Scholar at KU Leuven, Belgium, and did his Post Doc at IIT Kanpur, India. He has been working on AI-Law topics for the last 15+ years. His papers have received awards at the two most recognized international conferences in AI and Law – Best Paper award at JURIX 2019 and Best Student Paper award at ICAIL 2021. He has also published papers in reputed AI-Law journals such as AI and Law, Springer (the most reputed AI-Law journal), IPM, and prestigious conferences such as SIGIR, ACL, EMNLP, The Web Conference, CIKM, NAACL, ECIR, COLING, etc. In addition, he has organized several AI-Law events, including a workshop with an international conference (ACM CIKM) and shared tasks that hosted talks by reputed researchers in the domain. He has been inducted into the Editorial Board of the AI and Law journal, Springer (the most reputed AI-Law journal), and is an Adjunct Faculty Member at a premier national law university, WBNUJS, in India.

Dr. M. K. Nanda is a Professor in the Department of Agricultural Meteorology and Physics. Dr Nanda is a graduate from Odisha University of Agriculture and Technology and postgraduate from VisvaBharati. He has done Ph.D. from Bidhan Chandra Krishi Viswavidyalaya before joining as Faculty in BCKV. Dr. Nanda has been pursuing research in the area of Agrometeorology, Remote Sensing, Geographical Information System (GIS) as well as Digital soil mapping. During last 25 years he has completed number of collaborative research projects with reputed institutions like, Australian Centre for International Agricultural Research (ACIAR), Commonwealth Scientific and Industrial Research Organization (CSIRO), AsiaFlux, Indian Space Research Organization (ISRO), Indian Council of Agricultural Research (ICAR), Govt. of India as well as Govt. of West Bengal. Dr Nanda has guided seven (7) Ph.D. students and (15) M.Sc. students. He is a Resource Person in Earth Science and Geoinformatics division of Department of Science and Technology and Biotechnology (DSTBT), Govt. of West Bengal and Expert Member to different Educational and Research Institutions. He has published more than 150 research papers and several book chapters to his credit.

Dr. Sujoy Saha, a Ph. D. in Plant Pathology from the ICAR-Indian Agricultural Research Institute, New Delhi, served as an Assistant Plant Pathologist with the Department of Agriculture, Govt. of West Bengal, and the main area of research being disease management of cereal crops, potatoes and vegetables. Served as Senior Scientist, Plant Pathology at the ICAR-Indian Institute of Vegetable Research, Varanasi where the primary area of research was new generation fungicides and PGPRs. Identified by APEDA to develop package of practices for exportable vegetables. Presently serving as a Principal Scientist at the ICAR-National Research Centre for Grapes, Pune where he is entrusted to look into key matters of export, food safety and bio security. Coordinates several research projects with academic institutions, government bodies as well as with the pesticides industry with the core interest on new molecules of fungicides Published 152 research papers. Being life members of IPS, APIV, IMS, INS, ISVS and ISCA has delivered several keynote and lead lectures in national and international conferences and functions as a reviewer of journals of national and international repute. He was nominated as an expert by ICAR for TBT & SPS issues to assist Ministry of Commerce, GOI regarding pesticide residues and CODEX. Was a key member of GOI for formulating the BHARAT GAP guidelines and is credited with eight technologies recognized by ICAR which are being registered/ commercialized. Delivered the prestigious 15th Prof. S. B. Chattopadhayay memorial award lecture organized by Indian Mycological Society, Kolkata. Designated as Clean Plant Centre Head for grapes, by ICAR for the prestigious "Clean Plant Programme" of ADB and GoI. Recently, was Conferred the 'Citation of Honour' in the first National Round Table Conference, 2024 for "Viksit Bharat 2047" and "Senior Scientist of the year" by Uttar Banga Krishi Viswavidyalaya, West Bengal. Also, received the "Microbial Innovation Leader Award" at the National Biopesticides

Summit 2025, held at Assam Agricultural University, Jorhat, Assam in October 2025.

Sneha Bhosale, born in 1996 at Sangli, Maharashtra, had her secondary and higher education at Army Public School, Ahmednagar, Maharashtra. Completed her graduation from Willingdon College, Sangli and post-graduation from K.J Somaiya College of science and commerce, Mumbai, Maharashtra. Currently doing her Ph. D. in Biotechnology from the MIT College, Pune. Working as Senior Research fellow at ICAR- National Research Centre for Grapes, Pune. Qualified Graduate Aptitude Test in Engineering (GATE) examination in 2022. Published fifteen research papers in journals of national and international repute, 2 book chapters, 4 popular articles and 10 abstracts. Attended 6 national and international conferences and presented research papers.

Dr. Nutan Napte, born in 1997 in Pune, Maharashtra, she completed her secondary and higher secondary education at Vidyadham Prashala, Shikrapur, Pune. She earned her Bachelor's degree from the College of Agriculture, Dhule, followed by a master's degree from the College of Agriculture, Pune, Maharashtra. She completed her Ph.D. in Plant Pathology at the Post Graduate Institute, Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra. Currently, she is working as a Lab Assistant at the ICAR-National Research Centre for Grapes, Pune. She qualified the ASRB-NET examination in Plant Pathology in 2022. She has published five research papers in peer-reviewed journals, contributed four book chapters, authored five popular articles and presented three abstracts in various conferences. She completed one international and several national training programs.

Dr. Manas Kumar Bag, is currently serving as Principal Scientist (Plant Pathology) at ICAR – Central Rice Research Institute, Cuttack, India since 2015 and also worked as Senior Scientist at ICAR- National Bureau of Plant Genetic Resources, New Delhi during 2011-2014, Rice Research Station, Chinsurah, Dept. of Agriculture, Govt. of W.B. and having research experience of >25 yrs. He received Ph.D. degree in Plant Pathology from ICAR-Indian Agricultural Research Institute, New Delhi in 2001 and graduated in Agriculture & post graduated in Mycology & Plant Pathology from Bidhan Chandra Krishi Viswavidyalaya, West Bengal. Major area of research is host resistance to plant diseases, identification of resistant genotypes, bio-intensive pest management, molecular pathology, rice disease management. He has publications of > 180 that include**,** about 70 peer reviewed research articles, 20 book chapters and around 65 popular articles, training manual and research notes. Google Scholar Citations: 1736; *h*-index: 22; *i*10-index: 37. He presented more than 50 papers in international and national conferences that include memorial lecture, lead lecture and invited lectures. Presently he is Faculty of Post Graduate School, IARI New Delhi, and also served as guest lecturer of Ramakrishna Mission Vivekananda University, West Bengal and Institute of Agricultural Sciences, Calcutta University. *For his contribution in the field of plant pathology / crop protection*, he has been bestowed with various awards and Fellow. Delivered 11th Prof. S.B. Chattopadhyay Memorial Lecture, IMS,

Kolkata; Prof. A. K. Sarbhoy Memorial Lecture, IPS, New Delhi; Fellow of Indian Phytopathological Society, New Delhi; Indian Mycological Society, Kolkata, Association for Advancement of Agricultural Sciences, Kolkata; Crop and weed Science Society, BCKV and many others. Awarded Prof. M.J. Narasimhan Gold Medal 2003 for best paper by IPS, New Delhi; He acts as External Examiner and moderator for BCKV, West Bengal; UBKV, West Bengal; OUAT, Odisha, ViswaBharati Viswavidyalaya, West Bengal and Sri Sri University, Odisha. He is editorial board member of Indian Phytopathology and J. of Appl. Zool. Res. and reviewer of many journals published by Elsevier, Springer, Frontiers, MDPI, and Academic etc.

Gaurav Kumar Dewangan is currently pursuing M.Sc. Plant Pathology at IARI-CRRI Cuttack Hub, Odisha. He has completed B.Sc. (Hons.) Agriculture from Indira Gandhi Krishi Vishwavidyalaya, Raipur with 8.33 OGPA. Experienced in hands-on training from Indian Chamber of Food and Agriculture, Mangosorange Agritech India Pvt. Ltd. and 360 Research Foundation – Department of Agriculture. He has participated in various webinars and trainings conducted by reputed institutes of ICAR. Presently he is working on the aspect of plant-microbiome.

Femi Francis is currently pursuing a PhD in Plant Pathology at the ICAR - Central Rice Research Institute (CRRI) in Cuttack, Odisha. She completed her graduations in Agriculture from Kerala Agricultural University and awarded degree in M.Sc. (Ag.) Plant pathology at the University of Agricultural Sciences, Raichur, Karnataka. Throughout her academic journey, she has explored various aspects of pathogenomics, including microbiome research and potential biocontrol methods for managing false smut disease. She awarded for her presentation in National PG Conference, 2023 at UAS, Raichur. She has qualified for the UGC NET with Junior Research Fellowship (JRF).

Dr. Shyamaranjan Das Mohapatra completed his Ph.D. in Entomology & Agricultural Zoology from Banaras Hindu University in 2001, following an M.Sc. in Entomology from G.B. Pant University in 1998 and a B.Sc. in Agriculture from Odisha University of Agriculture & Technology in 1996. He is currently serving as the Head, Division of Crop Protection, ICAR-Central Rice Research Institute, Cuttack, Odisha. With over 20 years of research experience, Dr. Mohapatra has specialized in remote sensing applications in pest management, ecological engineering-based pest control, and the use of artificial intelligence in pest forecasting. He holds a patent for the Alternate Energy Light Trap device and has developed two products, the Solar 24x7 Insect Trap and Eco-Friendly Solar Light Trap, which collectively generated over Rupees 80 crores in business and royalty earnings of more than Rupees 3 crores. Dr. Mohapatra has published over 60 peer-reviewed research papers, authored three books, and co-developed more than 10 rice varieties and mobile apps like Ricexpert and Ricepestlab. A recipient of prestigious awards including the ICAR Nanaji Deshmukh Outstanding Team Award, he is also a Fellow of various scientific societies. Additionally, he serves as a reviewer for journals such as Scientific

Reports and Industrial Crops and Products and has guided three Ph.D. and six M.Sc. students. His leadership and innovative contributions have significantly impacted pest management and rice research.

Dr. Sunil Kumar Ghosh is Associate Professor grew up in India, achieved his Bachelor's degree to doctoral in BCKV-Agriculture University in Agriculture Entomology. He joined as Assistant Professor in UBKV-Agriculture University in 2002 and Associate Professor in BCKV in 2014. Since his joining Dr. Ghosh is engaged in teaching, Research and extension work. His research area is climate change, bio-pesticides and sustainable Agriculture. Dr. Ghosh has acted as Head in the Department of Agricultural Entomology for about 7 years in UBKV-Agriculture University. Presently he is acting as Officer-in-Charge of the research projects AINP on Agril. Acarology in BCKV. He is associated with about 31 academic professional bodies as life member, Editorial Board Member etc. He has published about 100 peer reviewed research article in well reputed journals, and 32 book chapters. He has published five international books. He has physically attended and presented research papers in 52 national and International conferences including 13 invited talk. He has achieved about 23 awards. He has guided 2 Ph.D. and 8 M.Sc. (Ag) students. He has physically visited 26 countries for academic activities with 17 nos. scholarship/fellowship/travel grants including 13 nos. foreign scholarships. The visiting countries are -Germany (two times), Thailand, Sri Lanka, Nepal, Republic of Korea, Malaysia (two times), Philippines, Egypt, Netherlands, Belgium, UK, S. Africa, China, Vietnam, Bhutan, Singapore, UAE (Dubai), Nigeria, Indonesia, Fiji, Laos, Taiwan, Maldives, Turkey, Bangladesh (Two times). His Research Gate citation is 1620 and h-index 24.

Mr. Sujit Kumar Nayak is currently a PhD Scholar (Senior Research Fellow) at ICAR–Central Rice Research Institute, Cuttack, Odisha, India. His broad academic interests include environmental science, climate change, blue carbon ecosystems, greenhouse gas dynamics, and coastal wetland management, with particular exposure to mangrove and adjacent rice ecologies. He is pursuing his doctoral research in Environmental Science, focusing on blue carbon sequestration and climate change mitigation through management of mangrove–soil systems in coastal wetlands. Through his doctoral work, he has gained experience in field-based environmental studies, soil and ecosystem assessments, and environmental data analysis related to carbon and greenhouse gas emission estimation. Mr. Nayak completed his M.Sc. in Environmental Science from Fakir Mohan University, Odisha, securing First Class First position, and was awarded the Fakir Mohan University Gold Medal, Raja Sailendra Narayan Bhanjadeo Memorial Gold Medal, and "The Mother" Gold Medal for academic excellence. He is also a recipient of the prestigious INSPIRE Fellowship (Senior Research Fellow) awarded by the Department of Science and Technology (DST), Government of India. He has published more than 10 research articles, including research papers and book chapters.