

## FACULTY PROFILE FORMAT

1. **Name:** Prof. Pranab Dutta

2. **Designation:** Chairman, School of Crop Protection, College of Post Graduate Studies in Agricultural Sciences, Central Agricultural University (Imphal)

3. **Department/Section:** School of Crop Protection

4. **Official Email id:** [chairmancropprotection@gmail.com](mailto:chairmancropprotection@gmail.com), [pranabdutta74@gmail.com](mailto:pranabdutta74@gmail.com),

5. **Profile Photo:**



6. **Areas of Specialization:** Plant Pathology, Fungal Pathology, Nanotechnology

7. **Research Interests:** Biological control, Nanotechnology, Bioformulation, Nanoformulation, Host Defense, Drug delivery and kinetics

8. **Highest Educational Qualification:**

PhD, Post Doc (London), Post Doc Training (Thailand)

9. **Professional Experience:**

- Chairman-Crop Protection, CPGSAS, CAU (Imphal), Umiam, Meghalaya (Sept 2025-till date)
- Professor (Plant Pathology), CAU(Imphal)-College of Agriculture, Kyrdemkulai, Meghalaya (Feb 2024 – Sept 2025)
- Associate Professor (Plant Pathology), CAU (Imphal)-College of Post Graduate Studies in Agricultural Sciences, Umiam, Meghalaya (Jan 2020 – Feb 2024)
- Jr Scientist (S-II) (2016-2020), Jr. Scientist (2012-2016), Assam Agricultural University, Jorhat, Assam
- Programme Coordinator (now Sr. Scientist cum Head) (2008-2011), Krishi Vigyan Kendra, Khowai, Tripura

10. **Research Projects**

Title	Funding Agency	Budget	Duration	Status
Biotechnology led organic farming in North East India-As PI	DBT, Govt of India	22.00 lakh	2010-2011	Complete
Studies of natural enemies of <i>Hygrophilapolysperma</i> . Sanction file no. 8-2/2003-	Osceola County, Florida, USA,	15.70 lakh	2010-12	Complete

IC-I(Pt.) Krishi Bhawan. DARE- <i>As Co-PI</i>	(through CABI via University of Florida)			
Biological Management of pests and diseases of tea ecosystem by <i>As PI</i> fungal and bacterial biocontrol agents - <i>As PI</i>	Peak Chemical Industries, Ltd, Siliguri, West Bengal	7.777 lakh	2012-14	Complete
Mapping potential areas for organic crop production in Assam <i>As Co-PI</i>	RKVY	30.0 lakh	2013-2014	Complete
Popularization and dissemination of technology of bio-pesticide formulations among the poor and marginal (ST) farmers of weaker sections in North East Region- <i>As PI</i>	DST, Govt. of India	223 lakh	2014-2016	Complete
Development of next-gen nano-bioformulation(s) of <i>Trichoderma</i> for seed treatment of major crops of Assam <i>As PI</i>	RKVY	90 lakh	2014-2017	Complete
Onychomycosis in agricultural workers of North-East India: Epidemiological study and Molecular characterization of the etiological agents. <i>As PI</i>	DBT, Govt of India	62.64 lakh	2014-2017	Complete
Identification of genes contributing resistance to <i>Alternaria brassicae</i> from a nonhost plant and their characterization in Arabidopsis for durable crop protection against blight disease in <i>Brassica rapa</i> - <i>As Co-PI</i> .	DBT, Govt of India	86.0 lakh	2016-2019	Complete
Development and evaluation of dehydrated Jack fruit products- <i>As Co PI</i>	BRNS, Govt. of India	25.0 lakh	2017-2019	Complete
Development of nanobiopesticide formulations of biocontrol agents with enhanced biocontrol ability and biochemical defence activity of host plants- <i>As PI</i>	PCIL, West Bengal	18.70 lakh	2017-2019	Complete
Harnessing the potential of endophytes against root knot nematode, <i>Meloidogyne incognita</i> in	DBT, GoI	22.01 lakh	2018-2020	Complete

banana” – <i>As Co PI</i>				
Post harvest loss assessment and SOPs of post harvest management of some important medicinal plants of Assam- <i>As Co PI</i>	AYUSH	25.0	2018-2020	Complete
Establishment of mass production unit of biocontrol agents and skill development of framers/rural youth” - <i>As PI</i>	ICAR-NBAIR	3.40 lakh	2020-21	Complete
Establishment of Biotech-KISAN Hub for supporting organic and alike farming through promotion of biopesticides technologies in farmers’ fields of North East India- <i>As PI</i>	DBT, Gol	120.5	2022-24	Complete
Evaluation of Bio-efficacy and Phytotoxicity evaluation of fungicide Fosetyl AI 80% WP (Aliette 80%WP) in Cardamom <i>As PI</i>	Bayer Crop Science Ltd. Phillipines	12.72	2020-21 2021-22	Complete
“Bioefficay and phytotoxicity evaluation trial of Fluopyram 250 G/L + Trifloxystrobin 250 G/L (Luna Sensation) against three different diseases in Apple- <i>As PI</i>	Bayer Crop Science Ltd. Phillipines	14.0	2020-21 2021-22	Complete
Evaluation of “Bayfolan algae” as a bio-stimulants in Apple - <i>As PI</i>	Bayer Crop Science Pvt Limited	5.10	2022-23	Complete
Evaluation of bioefficacy and phytotoxicity of Profiler against Azukal and Damping off disease of Cardamom - <i>As PI</i>	Bayer Crop Science Pvt Limited	14.72	2022-24	Complete
Investigation of plant growth and yield efficacy using a novel product ambition as a bio stimulant in apple- <i>As PI</i>	Bayer Crop Science Pvt Limited	5.00	2022-24	Complete
Evaluation of NNI-1702 30% WG [NNI-1501 10% + Pymetrozine 20% WG] to	Nichino India Private	7.08	2020-21 2021-22	Complete

control BPH/ WBPH in Rice. Sanction no. CAU-DR/4-1(G-C)PG/2012-Vil III/3505 dated 15 <sup>th</sup> June, 2020- As <i>Co PI</i>	Limited,			
Institute Research Project on Integrated Pest Management in Rice and Horticultural crops in NEH region - As <i>Co PI</i>	ICAR-NCIPM, New Delhi	5.00	2020-21 2021-22	Complete
Efficacy of Nemanol 20% EC (2.,4 Dicholoro chalcone and 2-thiochalcone) against rot knot nematode in tomato- As <i>Co PI</i>	Telluris Biotech Ind. Pvt. Ltd, Hyderabad	5.05	2022-23	Complete
Impact and access and usage of information and communication technology in IPM at NER of India- As <i>Co PI</i>	ICAR-NCIPM	2.15	2022-23	Complete
Cashew Area Expansion in the Non-traditional Areas and Cashew Awareness Campaign- As <i>PI</i>	ICAR-DCR, Puttur	10.0	2024-25	Complete
Popularization of organic Package of Practices for Selected Crops under Hilly Agroecosystems among Scheduled Caste Farming community of NE India As <i>Co PI</i>	ICAR-IISR	26.0	2024-25	On going
Multiinstitutional approach on development of technology driven bio-input production clusters for mass production of biofertilizer and biopesticides for promotion of eco-friendly framing with collateral development of bio-entrepreneurship in vegetables, spices and small tea growers of North East	DBT, Gol	30.98	2021-24	Complete

Region of India for better livelihood- <i>As PI</i>				
TSP on Validation and Promotion of Integrated Pest Management in Rice and Vegetable crops in NEH region- <i>As PI</i>	ICAR-NCIPM, New Delhi	4.00	2019-20 2020-21	Complete
Validation and promotion of IPM in rice and vegetables in NEH region- <i>As PI</i>	ICAR-NCIPM	2.28	2020-22	Complete
DBT NECAB lab funded by DBT-AAU centre- <i>As Co PI</i>	DBT-AAU Centre	15.0		Ongoing
Validation and promotion of IPM in rice and vegetables in NEH region- <i>As PI</i>	ICAR-NCIPM	2.28	2020-22	Complete
Molecular characterization of citrus germplasm of NER and systemic conservation through establishment of regional gene repositories- <i>As Co PI</i>	DBT, Gol	57.0	2020-23	Complete
Collection, conservation and morpho-phenological characterization of citrus germplasm of North East Region- <i>As Co PI</i>	DBT. Gol	10.312 crore	2021-24	Complete
Development of diagnostic kits for quick detection of CTV, HLB and Phytophthora rot diseases in Citrus of North East India- <i>As Co PI</i>	DBT, Gol	2.8285 crore	2021-24	Complete
Utilization of soil and plant microbial resources for enhancing the productivity of cropping systems and soil health under Jhum and terrace/valley agroecosystems of Eastern and North-Western Indian	DBT, Gol	215.024	2022-25	Complete

Himalayas- As Co PI				
Up-scaling of Organic Technologies through developments of Model Organic Farm in Aspirational Districts of NE India- As Co PI	DBT, GoI	63.9376	2022-24	Complete
Efficacy evaluation of Indaziflam 20 G/L + Glyphosate- Isopropylammonium 540 G/L (Alion Plus) in Arecanut – As PI	Bayer Crop Science Ltd.	8.65	2024-26	Ongoing
Efficacy Evaluation of Tebuconazole 50% + Trifloxystrobin 25% WG (NATIVO) on Arecanut- – As PI	Bayer Crop Science Ltd.	8.65	2024-26	Ongoing
Evaluation of Biostimulant (Leaf Energy) for Plant Growth Promotion and Bio-control Efficacy in Tea.	IBIDEN-Japan through IIT-Guwahati	13.59520	2025-26	Ongoing
Development of Biointensive IPM Module Village for Natural farming	ICAR-NRIIPM, New Delhi	20.0	2025-26	Ongoing
Bioefficacy and phytotoxicity of Flupicolite 62.5 g/L + Propamocarb Hydrochloride 625 g/L SC (Infinito) against Azhukal & Damping off diseases of Cardamom Crop	Bayer Crop Sci. Ltd,	15.70	2025-27	Ongoing

## 11. Research publication: (Selected best 50 papers)

- Vijayreddy D, Kandan A, **Dutta Pranab** and Pathak J (2025) Dual role of zinc oxide nanoparticles in antifungal action against *Rhizoctonia solani*, biosafety and phytotoxicity concerns in crop plants. *Physiological and Molecular Plant Pathology*. 138(2025)102712. Doi: <https://doi.org/10.1016/j.pmpp.2025.102712> , . **[NAAS: 8.80]**
- Bhupenchandra I, Sharma LD, Salam MD, Kumar S, Chongtham SK, Choudhary AK, Devi HL, Sinyorita S, **Dutta Pranab**, Bouket AC, Minkina T and Keswani C (2026) Unravelling the role of soil enzymatic activity as a vital bioindicator of soil health and fertility in agricultural systems. *Applied Soil Ecology*. 219. <https://doi.org/10.1016/j.apsoil.2026.106816> . **[NAAS: 11.00]**

3. Jeevan H, Patidar RK, Kadam V, **Dutta Pranab**, Nongbri E, Rudra MNR, Nayak S and Nysanth NS(2025) . Implementing sustainable practices to combat root knot nematode infestation in tomato farming from Meghalaya. *Scientific Reports* **15**, 602 <https://doi.org/10.1038/s41598-024-84292-5> . **[NAAS: 9.90]**
4. Gomathy M, Munisamy J, Sabarinathan KG, Subramanian KS, Dharmaraj R, Nath DJ, **Dutta Pranab** and Devarajan AK(2024) Impact of Foliar Application of Phyllosphere Yeast Strains Combined with Soil Fertilizer Application on Rice Growth and Yield. *Environmetal Microbiome*.DOI: 10.1186/s40793-024-00635-9 **[NAAS: 13.90]**
5. Bidyalaxmi Devi O, Sarma P, **Dutta Pranab**, Hazarika BN, Singh S, Deo C, Ningthoujam Somorjit Singh SS, Singh YD (2024) Biogenic Synthesis of Copper Nanoparticles from *Curcuma caesia* Leaves and its Characterisation for Potential Application Towards Agriculture. *National Academy Science Letters* <https://doi.org/10.1007/s40009-024-01565-3>. **[NAAS:7.10]**
6. Dey U, Sarkar S, Sehgal M, Awasthi DP, De B, **Dutta Pranab**, Majumdar S, Chander S, Sharma PT, Mohanty, AK (2024) Integrating weather indices with field performance of novel fungicides for management of late blight of potato (*Phytophthora infestans*) in North Eastern Himalayan Region of India. *PLoS ONE* 19(12): e0310868. <https://doi.org/10.1371/journal.pone.0310868> **[NAAS:9.70]**
7. Kumar S, Rahman M, Bouket AC, Ahadi A, Meena M, Bhupenchandra I, Singh Uday B, Arutselvan R. Kumar R, Singh SP, Kashyap AS, Tripathi R, Gupta S, **Dutta Pranab**, Harish, Singh R, Swapnil P (2024) Unravelling the multifarious role of wood vinegar made from waste biomass in plant growth promotion, biotic stress tolerance, and sustainable agriculture. *Journal of Analytical and Applied Pyrolysis* 185 (2025) 106851 <https://doi.org/10.1016/j.jaap.2024.106851> **[NAAS: 11.80]**
8. Bhupenchandra I, Chongtham SK, Gangarani A, **Dutta Pranab**, Lamalakshmi E, Mohanty S, Choudhury AK, Das A, Sarika K, Kumar S, Sonika Y, Sagolsem D, Anand YR, Bhutia DD, Victoria M, Vinodh S, Tania C, Sumit Kumar, Sharma AD, Deb L, Sahoo MR, Seth CS,Swapnil P, Meena M (2024) Harnessing weedy rice as functional food and source of novel traits for crop improvement. *Plant Cell Environment*,1-24, .DOI: 10.1111/pce.14868 **[NAAS: 13.30]**
9. Bishal Bhuyan, Arijita Paul, Bappi Paul, Siddhartha Sankar Dhar, **Pranab Dutta** (2017) *Paederia foetida* Linn. promoted biogenic gold and silver nanoparticles: Synthesis, characterization, photocatalytic and *in vitro* efficacy against clinically isolated pathogens. *Journal of Photochemistry & Photobiology, B: Biology* 173: 210-215. PMID: **28599238**, DOI: [10.1016/j.jphotobiol.2017.05.040](https://doi.org/10.1016/j.jphotobiol.2017.05.040)**[NAAS: 12.81]**
10. **Dutta Pranab**, Mahanta M, Singh S. Basanta, Thakuria D, Deb Lipa, KumariA, Upamanya GK, Boruah S, Dey U, Mishra AK, VanlaltaniL,Vijay Reddy<sup>1</sup> D, Heisnam P, Pandey AK (2023) Molecular interaction between Plants and *Trichoderma* species against soil borne plant pathogens. *Frontiers in Plant Science*. 14:1145715. doi: 10.3389/fpls.2023.1145715. **[NAAS: 12.63]**
11. **Dutta Pranab**, Kumari A, Mahanta M, Upamanaya GK, Heisnam P, Borua S, Kaman PK, Mishra AK, Malik M, Muthukrishnana G, Sabarinathan G, Puzari KR and Reddy V (2023) Nanotechnological approaches for management of soil borne plant pathogens, *Frontiers in Plant Science*. 14.1136233. doi:10.3389/fpls.2023.1136233. **[NAAS: 12.63]**
12. **Dutta Pranab**, Kumari A, Mahanta M, Biswas KK, Dudikiewicz A, Thakuria D, Addehrhim A, Singh BS, Muthukrishnan G, Sabarinathan GK, Mandal MK and Mazumdar N (2022) Advances in nanotechnology as a potential alternative for plant viral disease management. *Frontiers in Microbiology: Microbes and Virus Interaction with plants*.Volume 13 : DOI: **DOI: 10.3389/fmicb.2022.935193****[NAAS: 12.06]**
13. Sinha, S; Thakuria, D; Chaliha, C; Uzir, P; Hazarika, S; **Dutta, P**; Singh, AK; Laloo, B (2023) Plant growth promoting traits of culturable seed microbiome of citrus species

- from Purvanchal Himalaya *Frontiers in Plant Science*. 1104927. doi: 10.3389/fpls.2023.1104927 [NAAS: 11.75]
14. Deb Lipa, **Dutta Pranab**, Singh, S Basanta and Mandal MK (2022) Antimicrobial traits of fungal entomopathogen *Beauveria bassiana* and its relation in exhibiting protection against sheath blight of rice under field condition. *Plant Disease*. Jun;107(6):1739-1756. doi: 10.1094/PDIS-04-22-0806-RE. Epub 2023 Jun 16 [NAAS: 10.61]
  15. Bhupenchandra, I., Chongtham, S.K., Devi, A.G., **Dutta Pranab et al.**(2024) Unlocking the Potential of Arbuscular Mycorrhizal Fungi: Exploring role in plant growth promotion, nutrient uptake mechanisms, biotic stress alleviation, and sustaining agricultural production systems. *J Plant Growth Regulation* <https://doi.org/10.1007/s00344-024-11467-9> [NAAS: 10.70]
  16. Deb, Lipa, **Dutta, Pranab**, Devi, R.K.T., Thakuria, D. and Majumder, D. (2023). Endophytic *Beauveria bassiana* can protect the rice plant from sheath blight of rice caused by *Rhizoctonia solani* and enhanced plant growth parameters. *Archives of Microbiology*, ISSN No. 0302-8933, doi: 10.1007/s00203-022-03211-2 [NAAS: 8.67]
  17. **Dutta P**, Deb, L and Pandey AK (2022) *Trichoderma*-From lab bench to field application: Looking back over 50 years, *Frontiers in Agronomy*. 4:932839. doi: 10.3389/fagro.2022.932839, [IF:4.4]
  18. **Dutta P** (2018) Bioformulation of *Trichoderma harzianum* for the management of soil borne plant diseases. Paper presented in ICPP\_2018 at Boston, USA, *Phytopathology*, 274. <https://doi.org/10.1094/PHYTO-108-10-S1.240> © 2018 The American Phytopathological Society. [NAAS: 10.01]
  19. Kaushik, H and **Dutta, P.** (2017) Chemical synthesis of Zinc oxide nanoparticle: Its application for antimicrobial activity and plant health management. *Phytopathology*, 107 (12) : 38-38. [NAAS: 10.01]
  20. Pandey AK, Hubballi M, Vandana, M, **Dutta Pranab**, Babu A. (2023) Characterization and Identification of Fungicide Insensitive *Pestalotiopsis*-Like Species Pathogenic to Tea Crop in North Bengal Province, India. *World Journal Microbiology and Biotechnology*. 39 9(4) ISSN no.0959-3993,, <https://doi.org/10.1007/s11274-022-03474-3>. [NAAS: 10.25]
  21. Nishithendu Bikash Nandi, Nishan Das, Susanta Ghanta, Krishti Rekha Puzari, **Pranab Dutta**, Julia Kłak, Lesław Sieroń, Waldemar Maniukiewicz, Tarun Kumar Misra (2023) Atropisomers and a copper(II) complex derived from 1,3-dimethyl-5-(8'-quinolinylazo)-6-aminouracil: structures, magnetism and biological properties. *New Journal of Chemistry*. 47 : 21633-21647, DOI: 10.1039/d3nj04598f [NAAS: 9.93]
  22. Nandi NB, Roy S, Ghanta S, Mahanta M, **Dutta Pranab**, Kłak Julia, Sieroń L, Maniukiewicz Waldemar, Misra Tarun Kumar (2024) Copper(II) complexes of 1,3-Dimethyl-(5-(8'-quinolinylazo)-6-aminouracil: Structures, Magnetism and Biological activity. *Journal of Molecular Structure*, .Manuscript Number: 1309, <https://doi.org/10.1016/j.molstruc.2024.138215>.. [NAAS:9.80]
  23. Dudkiewicz, Agnieszka, **Dutta, Pranab** and Kołożyn-Krajewska, Danuta (2022) Ethylene oxide in foods: current approach to the risk assessment and practical considerations based on the European food business operator perspective. *European Food Research and Technology* ISSN No. : 1438-2377, , doi: <https://doi.org/10.1007/s00217-022-04018-7>. [NAAS: 9.50.]
  24. Hughes, Jonathan M.; Budd, Peter M.; Grieve, Andrew; **Dutta, Pranab**; Tiede, Karen and Lewis, John (2015). Highly monodisperse, lanthanide-containing polystyrene nanoparticles as potential standard reference materials for environmental “nano” fate analysis. *Journal of Applied Polymer Sciences*.132 (24) 42061- 42070, DOI: [10.1002/app.42037](https://doi.org/10.1002/app.42037) [NAAS: 9.06]
  25. Upamanya, GK, Bhattacharyya, A and **Dutta, Pranab** (2020) Consortia of entomopathogenic fungi and biocontrol agents improved the agroecological conditions for brinjal cultivation in Assam. *3 Biotech*. 10 (10) doi.org/10.1007/s13205-020-02439-3. [NAAS: 8.89]

26. **Dutta Pranab**, Deb, L and Thakuria D (2022) *Trichoderma harzianum* Rifai based bioprotective agent modulate growth promotion in rice (*Oryza sativa*) and provides protection against blight and sheath rot diseases under field condition. *World Journal of Biotechnology and Microbiology*(**NAAS:9.31**)
27. Basumatary B., Das D., Choudhury B.N., **Dutta Pranab**, Bhattacharyya A. (2021). Isolation and characterization of endophytic bacteria from tomato foliage and their *in vitro* efficacy against root-knot nematodes. *Journal of Nematology*. Doi: 10.21307/jonem-2021-104. **NAAS: 7.48** JrnID: J386, ISSN No.: 0022-300X.
28. Das, A and **Dutta Pranab** (2021) Antifungal activity of biogenically synthesized silver and gold nanoparticles against sheath blight of rice. *Journal of Nanoscience and Nanotechnology*. 21 (6) . 3547-3555 (9), DOI: <https://doi.org/10.1166/jnn.2021.18996> (**IF:1.35**)
29. **Dutta, Pranab**, Gomathy M., Sabarinathan KG, Rajakumar D, Ananth K, Karthiba L, Kalaiselvi P, Pillai MA, Upamanya GK, Boruah S, Deb L., Kumari A, Mahanta M, Heisnam P, Mishra AK (2022). Mechanisms of plant growth promoting rhizobacteria (PGPR) to combat plant diseases for better productivity. *Biocell*,46(8): 1843-1859; doi:10.32604/biocell.2022.019291 JrnID: B038. ISSN No.: 0327-9545.**NAAS: 7.11.**
30. Das, G. and **Dutta Pranab** (2022). Effect of nanoprimering with Zinc oxide and silver nanoparticles on storage of chickpea seeds and management of wilt diseases. *Journal of Agricultural Sciences and Technology*. 24 (1): 213-26. JrnID: J023, ISSN No.: 1680-7073. (**NAAS: 7.28**)
31. Borgohain P., Barua P., Das, B., Mahanta J., Saikia B., **Dutta, Pranab** and Saikia L.R. (2022). Antifungal activity of selected Medicinal plants used by indigenous people of Assam in India to treat Onychomycosis. *Journal of Herbs, Spices and Medicinal Plants*. doi: 10.1080/10496475.2022.2034701. **IF: 0.909**, ISSN No.: 15403580.
32. Dutta, Devanushi, Puzari, K.C., Gogoi, Robin and **Dutta, Pranab** (2014). Endophytes: Exploitation as a tool in plant protection. *Brazilian Archives of Biology and Technology*, 57 (5): 621-629 **NAAS: 7.18**
33. Chakravorty, R.; **Dutta,Pranab** and Ghose, J. (2010). Sericulture and traditional craft of silk weaving in Assam. *Indian Journal of Traditional Knowledge*.9(2): 378-385. **NAAS:7.09**
34. Puzari, K.C., Hazarika, L.K.,**Dutta, Pranab** and Das, P. (2003). Shelf life and enhancement of virulence of *Beauveria bassiana*. *Indian Journal of Agricultural Sciences*.73 (10): 542-545**NAAS: 6.37**
35. **Dutta, Pranab** and Das, B.C. (1999). Control of *Rhizoctonia solani* in soybean (*Glycine max*) by Farmyard manure culture of *Trichoderma harzianum*. *Indian Journal of Agricultural Sciences*. 69(8): 596-598. **NAAS: 6.37**
36. Pandey AK, Kumar A, Kamati D, Varshney R and **Dutta P** (2022) The hunt for beneficial fungi for tomato crop improvement – advantages and perspective. *Plant Stress*, ISSN: 2667-064X, doi: <https://doi.org/10.1016/j.stress.2022.100110>. **NAAS:12.80**
37. Thakuria Dwipendra, Chaliha Chayanika, **Dutta Pranab**, Sinha S, Uzir P, , Singh S Basanta, Hazarika, S; Sahoo Lingaraj, Kharbikar Lalit Laxman, Singh Dinesh (2023) Citrus Huanglongbing (HLB): Diagnostic and management options. *Physiological and Molecular Plant Pathology*.125 <http://doi.org/10.1016/j.pmpp.2023.102016>.**IF+2.741** **NAAS :8.74**
38. Sarma BD, Puzari KC, **Dutta Pranab**, Pandry AK (2023) An alginate-based encapsulation enhances shelf life and bioactivity of the entomopathogenic fungus, *Metarhizium anisopliae*. *Egyptian Journal of Biological Pest Control*. 33:69. <https://doi.org/10.1186/s41938-023-00714-y> (**NAAS: 8.76**)
39. Upamanya GK, **Dutta, Pranab** and Bhattacharyya, A (2023) Biointensive management of pests of brinjal with consortia of entomopathogenic fungi, fungal antagonists and biofertilizer in the agro-ecological conditions of Assam. *International*

*Journal of Tropical Insect Sciences*. <https://doi.org/10.1007/s42690-023-01083-7>, ISSN no. : 1742-7584 [NAAS:7.02]

40. Dutta P, Deb, L and Pandey AK (2022) *Trichoderma*-From lab bench to field application: Looking back over 50 years, *Frontiers in Agronomy*. 4:932839. doi: 10.3389/fagro.2022.932839, [NAAS: 9.5]
41. Kumari A, **Dutta Pranab**, Pathak M, and Thakuria D (2023) Green synthesis of copper nanoparticles mediating *Curcuma caesia* Roxb. leaf extract and assessment of its antifungal activity against *Colletotrichum capsici*. *AMA- Agricultural Mechanization in Asia Africa and Latin America* 54 (07): 14625-14651 [NAAS:6.29]
42. **Dutta Pranab**, Deb, L and Thakuria D (2022) *Trichoderma harzianum* Rifai based bioprotective agent modulate growth promotion in rice (*Oryza sativa*) and provides protection against blight and sheath rot diseases under field condition. *World Journal of Biotechnology and Microbiology* [NAAS:9.31]
43. Bag TK, Dutta P, Hubballi M, Kaur R, Mahanta M, Chakraborty A, Das G, Katakya M and Waghunde R (2024) Destructive *Phytophthora* on orchids: current knowledge and future perspectives. *Front. Microbiol.* 14:1139811. doi: 10.3389/fmicb.2023.1139811 [NAAS: 12.06]
44. Sudharshan Keralapura Ramachandra, **Dutta, Pranab**; Nandeesh SV; Kaushik, Snata; Meetei, Tombisana; Mahanta, Madhusmita (2024) Molecular Characterization and Cross-Pathogenicity Assessment of Black Rot (*Xanthomonas campestris* pv. *campestris*) Strains in cabbage, broccoli, radish, mustard, cauliflower and knolkhol from Meghalaya. *AMA, Agricultural Mechanization in Asia, Africa and Latin America*. 55 (03): 18201-18215 [NAAS: 6.30]
45. Keralapura Ramachandra, Sudharshan ; **Dutta, Pranab**; Parthiban, M; and Gumachanamardi P.(2024) Assessment of black rot (*Xanthomonas campestris*) of cabbage (*Brassica oleracea*) in east Khasi Hills, Meghalaya. *Indian Journal of Agricultural Sciences* 94 (7): 750-755, <https://doi.org/10.56093/ijas.v94i7.142761>. | [NAAS: 6.40]
46. Kathbaruah, S; Bhattacharyya, Badal; Borkataki, Shimantini; Gogoi, Bhabesh; Hatibarua, Preeti; Gogoi, Sailen, Gogoi; Bhairavi, K. Sindhura; **Dutta, Pranab** (2024) Termite mound soil based potting media: A better approach towards Sustainable Agriculture. *Frontiers in Microbiology*. 15:1387434, DOI 10.3389/fmicb.2024.1387434. [NAAS: 11.20]
47. Hia Kalita, Mahesh Pathak, Sudharshan K. et al. Effect of Nanoparticles on Morphohistology of Eri silkworm, *Samia cynthia ricini* (Boisduval) (Lepidoptera: Saturniidae), 14 August 2024, PREPRINT (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-3252027/v1] *International Journal of Tropical Insect Science*. . [NAAS: 7.20]
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**12. Courses Taught:** Teaching UG and PG courses on Principles of Plant Pathology, Biological Control of Plant Diseases and weeds, Principles of Plant Diseases, Management, Biosafety and Biosecurity, Principles of Seed Certification, Detection and Diagnosis of Plant Diseases, Mycology, Advanced Mycology, Diseases of Horticulture and Spices Crops, Molecular Basis of Host Pathogen Interaction etc.

**13. Student Guidance:**

a. **M.Sc. Guided:** MSc: 19, Pursuing: 02

b. **Ph.D. Guided:** PhD: 05, Pursuing: 04

**14. Significant Achievement:**

- Standardized ten (10) technologies for liquid bioformulation of indigenous biocontrol agents with shelf life of 16 months.
- Commercialized four (4) bioformulation technologies through Green Biotech Eco Solutions Pvt. Ltd., Manipur,
- Technology transferred : 2 bioformulation technologies transferred to Govt. of Meghalaya, Govt. of Nagaland and JVES, West Bengal, M/S Larry Enterprise, Meghalaya
- Developed five package of practices for organic cultivation of agricultural crops and recommended by AAU, Jorhat and Department of Agriculture, Govt. of Assam
- Externally funded project handled
  - Completed as PI/Co-PI: 20
  - Ongoing as PI/Co-PI: 07
- Established a Biopesticide Production Unit and Communication cell at CPGSAS, Umiam
- Established Nanotechnology lab at AAU, Jorhat
- Developed green engineered protocol of Ag, Au, Cu and ZnO nanoparticle
- Training/Workshop/Short course organized: 17 nos.
- Collaborative research work with national and international institutes : 20 nos.
- Patent Granted : 3
- Recipient of DBT Overseas Associate for Post Doctoral Research on Nanotechnology at FERA, UK, London (2012)
- Bursary Award to attend ICPP-2018, Boston, USA and ICPP-2023, Lyon, France
- Sharda Lele Memorial Award of Indian Phytopathological Society, India (2023)
- IDP-NAHEP Fellowship to visit Asian institute of Technology, Thailand (2023)
- Expert Committee Member of Indian Council of Forestry Research, Dehradun (2022-2024)
- Expert Member for Organic Certification, Govt. of Meghalaya (2024)
- External Member, Board of Studies (BoS) in Plant Pathology of Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh (2024-2027)
- Sir E. J. Butler Memorial Award, Indian Mycological Society, Kolkata (2024)
- Dr A P J Abdul Kalam Scientist Award of AETDS (2019)
- Young Scientist Award at Navsari Agricultural University (2019)
- Sectional Editor of Indian Phytopathology(2020-2022)
- Fellow of Society of Plant Protection Science, ICAR-NCIPM, New Delhi (2022)
- Fellow of Society of Biocontrol Advancement, ICAR-NBAIR, Bangalore (2021)
- Fellow of Society of Biotic and Environment Research, Tripura(2021)
- Outstanding Plant Pathologist Award of DISHA, Jharkhand (2021)

- Best poster and Oral presentation award-25 in national and international conferences, seminar, workshop
- Editor-in-Chief, Journal of Plant Health Archives (2021 onward)
- Editor (Sectional) of Indian Society of Mycology and Plant Pathology (2021-2023)
- Resource person for 78 times in CAFT programme, skill development programme, training programme etc
- Invited speaker -20, lead speaker-12, key note lecture-2 in national and international conference
- External PhD thesis evaluators of IARI, New Delhi (2023); BCKV, West Bengal(2022), Techno India University, West Bengal(2024)
- **External Expert**, for North East Centre for Technology Application and Reach(NECTAR), DST, Govt. of India for PM-DevINE, 2024.

**15. Workshops | Trainings | Conferences Organized: 23 nos.**

**16. Google Scholar/ORCID/ResearchGate Scopus ID:**

**Google Scholar:** <https://scholar.google.com/citations?user=bb0tunwAAAAJ&hl=en>

**ORCID:** <https://orcid.org/0000-0002-5316-7352>

**ResearchGate:**

<https://www.researchgate.net/profile/Pranab-Dutta-2>

**Scopus ID:** <https://www.scopus.com/authid/detail.uri?authorId=56378304900>

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