# CURRICULUM VITAE

# NAme :Dr. Anjana Singha Naorem

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CURRENT POSITION

* Assistant Professor in department of Zoology, erstwhile Cotton College State University and at present Cotton University since 3rdMay 2016
* Assistant Professor in Miranda House, Delhi University (India)from August 2007 to 2ndMay 2016

TEACHING EXPERIENCE: 17y (till 31July 2024)

* Assistant Professor, Department of Zoology, Miranda House, University of Delhi, 16 July 2008- 2ndMay 2016
* Ad-hoc Lecturer, Department of Zoology, Miranda House, University of Delhi, 01 August, 2007-15 July 2008
* Ad-hoc Lecturer, Department of Zoology, Miranda House, University of Delhi, 25 August, 2004- 29 September 2004.
* Guest-Lecturer, Department of Zoology, Miranda House, University of Delhi from October 2003 to March 2004; July 2004, October 2004-March 2005
* Guest Faculty in the Department of Zoology under the **2nd Training Program of DU-KU (Delhi University-Kabul University) Educational Partnership Contract** held during January-February 2013 .
* Guest Faculty for M. Sc Zoology classes in the Department of Zoology, University of Delhi (September-October 2008)

ACADEMICS

* Ph.D. Department of Zoology, University of Delhi, 2011

**Title of Thesis:** “*Behavioural responses of Nezara viridula (L.) (Hemiptera: Pentatomidae) to certain host plants and efficacy of neem for its management***”**

* M. Phil Department of Zoology, University of Delhi, 2003

**Title of Dissertation:** “*Efficacy of neem for the control of Heteropteran pests”.*

* **CSIR-UGC NET** for Lectureship qualified on 19/08/2002 (Roll no. 311382) in Life Sciences
* M.Sc (Zoology) Department of Zoology, University of Delhi, 2002

Specialization in **Entomology** (Optional papers: **Immunology** and **Animal Behaviour)**

* B.Sc from GCG-11, Panjab University, Chandigarh, 1999

AWARDS AND DISTINCTIONS

* Scholarship from **United States Department of Agriculture** (USDA) to attend the International Electropenetrography (EPG) Conference and Workshop on the New AC-DC EPG technology (at Florida, USA) in 2016.
* Received JRF from University of Delhi during Ph.D. (Ref.no. Schs./JRF/Non-NET/2007-08/6610
* Received scholarship from Department of Zoology, University of Delhi in under the scheme **“National Scholarship under Centre of Advance Study”** during M.Sc. (2000-02) (Ref. No. Sch. NS/CAS/2000-02)

### Awarded IAFBA scholarship under IAFBA SMSS during B. Sc (1996-1999) from Indian Air Force Benevolent Association

* Secured **First** position in Zoology in the college in B.Sc. II and **Second** position in Zoology in the college in B.Sc.III

MEMBERSHIP OF PROFESSIONAL BODIES

* Life member of The Indian Science Congress Association (2016)
* Life member of Society of Medical Arthropodology (2020)
* Life Member of Zoological Society of Assam
* Member of Local Advisory Committee of Regional Science Centre, Guwahati

RESEARCH PROJECTS

* DBT sponsored research project on **“Study and comparison of heteropteran diversity in two areas of Guwahati region”** under the DBT programme “Proposal for the use of Foldscope as a research tool”. Duration- (20th March) 2018-2019. Grant-Rs 8 Lakhs. (Status-Completed)
* Cotton University *In House Research Project* on **“Study of toxicological potential of certain plant extracts for the control of *Megacopta cribraria* (F.) (Hemiptera: Heteroptera: Plataspidae)**”. Duration- one year (2019-20). Grant Rs. 1 lakh (Status- Completed)
* Cotton University *In House Research Project* on “**From Curiosity to Discovery: Enhancing Science Engagement through Foldscope in Schools”**. Duration- 18 months. (2023-25) Grant Rs. 1,00,000/-

PROJECT

* 4 month project on WWF-ECHO “PACK it HAPPEN” with the students of B.Sc Zoology IV semester during January-April 2019.

SUPERVISION OF STUDENT FOR DISSERTATIONS/THESES

**Ph.D. guidance- 4 (1 Awarded, 3 ongoing)**

1. Taxonomic studies of Heteroptera with special reference to the family Pentatomidae in Kamrup (Metropolitan), Assam, India- **Awarded** (Santana Saikia)
2. Termite Taxonomy- Anandita Buragohain
3. Evaluating some phytochemical extracts for its toxicological potential on *Megacopta cribraria-* Rubina Azmeera Begum
4. Pathological aspect of silkworm- Bidisha Talukdar

**M.Sc Dissertation**

* M.Sc Dissertation 2023. Knowing the lesser known drain flies, *Clogmia albipunctata* Williston

(Diptera: Psychodidae).

* M.Sc Dissertation 2023. Synergistic effect of fungal formulation *Beauveria bassiana* and *Lecanicillium lecanii* in population control of mosquito *Culex quinquefaciatus* Say.
* M. Sc Dissertation 2023. Microarthropod diversity and physico-chemical parameters of soil from different places of Guwahati city.
* M. Sc Dissertation 2023. Correlation between physicochemical properties of water and aquatic insect diversity in three pond systems of Barpeta road, Assam, India.
* M.Sc Dissertation 2022. Topic- Efficacy of *Aegle marmelos* (L.) leaf extract for the control of *Megacopta cribraria* (Fab.) (Hemiptera: Plataspidae).
* M.Sc Dissertation 2022. Topic- Repellent effect of *Citrus limon* (Kaji Nemu) on *Clavigralla gibbosa* bug (Hemiptera: Coreidae)
* M.Sc Dissertation 2022. Topic- Effects of the Queen’s absence on the behaviour of the worker bee and ovary development in *Apis mellifera* (Hymenoptera, Apidae).
* M. Sc. Dissertation 2021. Topic- A review on vectors involved in the spread of dengue in India particularly Northeast region of India.
* M. Sc. Dissertation 2021. Topic- A Review on Integrated Pest Management in Rice in India
* M. Sc. Dissertation 2020. Topic- Laboratory evaluation of micronized aqueous suspension of calcium hydroxide [Ca(OH)2] as a potent larvicidal agent against *Culex quinquefasciatus* say (Diptera: Culicidae)
* M. Sc. Dissertation 2020. Topic- Evaluation of larvicidal potency of *Citrus sinensis* against *Culex quinquefasciatus* Say
* M. Sc. Dissertation 2020. Topic- Prevalence of *Anopheles* species and their susceptibility to different insecticides in Darrang district, Assam.
* M.Sc. Dissertation 2019. Topic- Effect of photoperiod on the development of *Plautia crossata*Stal (Heteroptera).
* M.Sc Dissertation 2019. Topic- Development and feeding behaviour of the brown marmorated stink bug, *Halyomorpha* sp. (Stal) on three host plants.
* M.Sc Dissertation 2019. Topic- Aquatic insect diversity of Dighalipukhri.
* M.Sc. Dissertation 2019. Topic- A study on insect diversity of GudamghatMiri village of Sonitpur District.
* M.Sc Dissertation 2018. Topic- Study of certain biological aspects of Muga*(Antheraea assamensis*)and Eri (*Philosamia ricini*) silkworm reared on their host plants.
* M.Sc Dissertation 2017. Topic- Efficacy of lime Ca(OH)2 extracts against *Culex quinquefasciatus*Say (Diptera: Culicidae)
* M.Sc Dissertation 2017. Topic- Efficacy of neem and tulsi on papaya mealybug, *Paracoccus marginatus* Williams & Granara de Willink (Hemiptera: Pseudococcidae)

PUBLICATIONS

* Choudhury, S.; Das, JK.; Borah, L.; Medhi, K.; Hazarika, A.K. and Naorem, AS. 2024. Edible insects: nutritional, medicinal and allergenic aspects. *Indian Journal of Entomology,* (AIP)
* Begum, RA; Buragohain, A; Saikia, S; Aggarwal, PP and **Naorem AS.** 2024. Flavonoids-A dietary supplement for treating pregnancy induced disorders: A review. *International Journal of Biology, Pharmacy and Allied Sciences*, (AIP)
* Begum, RA and **Naorem, AS.** 2024. Innovative approaches to combat *Spodoptera frugiperda* (Smith, 1797): Towards sustainable pest management practices. *In* Hemen Chandra Talukdar (ed). Biological Spectrum of Northeast India. Annual Bioscience Communication Vol IV, 2024. EBH Publishers, Guwahati, Assam. Pp. 145-158. ISBN: 978-93-92038-83-9
* Saikia, S.; Begum, RA; Buragohain, A. and **Naorem AS.** 2024. Antifeedancy and growth regulatory action of neem on Heteroptera insect pests: A review. *In* P. Deka, M. Gogoi and B. Talukdar (eds.) Current Trends and Advances in Life Sciences Research. Pandu College Publication Cell, Pandu College, Guwahati, Assam. Pp. 204-212. ISBN: 978-81-922432-9-0.
* **Naorem, AS,** Begum, RA, Saikia S. and Buragohain, A. 2024. Ovicidal and toxicological potential of neem and Harad Extracts against *Megacopta cribraria* (F.) (Hemiptera: Heteroptera:Plataspidae). *International Journal of Entomology Research* **9(3)**: 79-86. ISSN: 2455-4758
* Saikia, S. and **Naorem, A.S.** 2024. First documentation of diversity of the Heteroptera of Cotton University Campus, Kamrup (Metropolitan), Assam, India. *Journal of Threatened Taxa* **16(2):**  24496–24502. ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print). <https://doi.org/10.11609/jott.8349.16.1.24496-24502>
* Tyagi, V., Saikia, S. Dey, D. **Naorem, A.S**, Tyagi, V., Chattopadhyay, P. and Veer, V. 2023. Sewage and wastewater management to combat different mosquito vector species. *In* B.K. Kashyap and M.K. Solanki (eds.) Current Research Trends and Applications in Waste Management. Springer Nature Singapore Pte Ltd. Pp. 101-116. ISBN: 978-981-99-3105-7. <https://doi.org/10.1007/978-981-99-3106-4_4>
* Saikia, S. and **Naorem, A.S.** 2023. First record of *Carbula scutellata* Distant 1887 (Hemiptera: Pentatomidae) from Assam and a new record of its association with *Acalypha indica* (L.) plant. *International Journal of Entomology Research* **8(5):** 39-42. ISSN: 2455-4758
* Saikia, S and **Naorem, A.S.** 2023. A study on diverse Heteroptera fauna of Kamrup (M), Assam. *In* C. Baruah and R. Hazarika (eds.) Recent Advances in Biological Science: Biodiversity and Human Welfare. Proceedings of the National Seminar on “Recent Advances in Biological Science: Biodiversity and Human Welfare”. Global Net Publication, New Delhi. Pp. 85-92. ISBN: 978-81-960385-4-0
* Saikia, S.; **Naorem, A.S.** and Borah, N.J. 2021. A review on entomotherapeutic practices by ethnic tribes of North East India. *In* A. Bawri, Kenjum Bagra, Imlikumba and Robindro Teron (eds.) Recent Advances in Folk Medicine Research in North East India. NEIFM Publishers (India), Pasighati, Arunachal Pradesh 2021. Pp: 216-240. ISBN 788195-504701.
* **Naorem, A.S**.; Thongatabam, B.; Aggarwl, P.; Gupta, G.; Raza, A. and Yadav, A. 2021. Efficacy of manjistha and ginger powder in extending the lifespan of *Drosophila melanogaster*. *Indian Journal of Traditional Knowledge* **20(4):** 1048-1052. ISSN 09725938
* **Naorem, A.S.;** Saikia, S., Buragohain, A.;Begum, R.A.; Boyane, S.S. and Ghate, H.V. 2021. First report of *Scipinia horrida* (Stål) (Heteroptera: Reduviidae) from Assam, with comments on related genus *Irantha* Stål. *Journal of Threatened Taxa* **13(12):** 19824–19830. <https://doi.org/10.11609/jott.7124.13.12.19824-19830>

ISSN 09747893

* **Naorem, A.S**. and Karthi, S. 2021. Ecology and Evolution of Insect Plant Interactions. *In* I. K. Singh, A. Singh (eds.), Plant-Pest Interactions: From Molecular Mechanisms to Chemical Ecology. Published by Springer Nature Singapore Pte Ltd 2021. Pp437-453. <https://doi.org/10.1007/978-981-15-2467-7>
* Thareja, V; James, A; Singh, R, **Naorem, A.S.**; Pandey, M; Khan, Z.; Sensharma, S. and Mohapatra, S. 2017. Overwintering sites and strategies of *Culex quinquefasciatus* (Diptera: Culicidae) larvae and impact of neem seed kernel aqueous suspension (NSKAS) and other eco-friendly tools on them. *International Journal of Mosquito Research* 4(2):135-141.ISSN: 2348-5906
* Thareja, V.; Singh R. and **Naorem, A. S.** 2016. Some observations on overwintering sites of adult *Culex quinquefasciatus*(Diptera: Culicidae) and strategies followed under natural and seminatural conditions. *Parasitology Research* **115(1):**195-203ISSN: 0932-0113
* **Naorem, A. S.** and Singh A.K. 2015. Assessing the suitability of the new semi-solid artificial diet developed for *Nezara viridula* (L.) (Hemiptera: Pentatomidae). *International Journal of Advanced Life Sciences* **8(3):** 293-299.ISSN: 2277-758X
* **Naorem, A.S.** and Thongatabam, B. 2015. Climate Change: A Threat to Agriculture in India. *In* S. Tripathi, R.K.Sanayaima Devi, S. Kumar & V. Jolli (eds.) Proceedings of the National Conference on *Climate Change: Impacts, Adaptation, Mitigation, Scenario and Future Challenges in Indian Perspective.* Pp. 99-103. ISBN: 978-93-5235-335-4. Publisher: Department of Botany, Deen Dayal Upadhyaya College (University of Delhi), New Delhi
* **Singha, A.**; Thareja, V. and Singh, A. K. 2007. Application of neem seed kernel extracts result in mouthpart deformities and subsequent mortality in *Nezara viridula* (L.) (Hem.:Pentatomidae). *Journal of Applied Entomology,* **131(3):** 197-201.  [**https://doi.org/10.1111/j.1439-0418.2006.01134.x**](https://doi.org/10.1111/j.1439-0418.2006.01134.x)ISSN: 0931-2048
* **Singha, A.**; Thareja, V. and Singh, A. K. (2003). Effect of neem seed extract on development of *Nezara viridula. Proceedings of the National Symposium on Frontier Areas of Entomological Research.* IARI, New **Delhi. Pp. 589-590. (Extended Abstract) from** 5-7 November 2003.

**ARTICLES IN MAGAZINE/NEWSPAPER, ETC.**

* **Talukdar, B. and Naorem, AS. 2024. Life without the queen bee. *In:* Science Reporter*,* 54-55.**
* **James, A., Thareja, V. and Singha, A. 2011. Ensuring better practice for better tomorrow. *In* Evolvere, the unfolding…Society Magazine of the Department of Zoology, Miranda House.**

**EDUCATIONAL RESOURCE MATERIAL DEVELOPED**

* **Coordinated** **NEP 2020** curriculum of Zoology course of Cotton University. (37 Papers) March 2024.
* **Member** in designing **PG Diploma** in **Natural History** of Cotton University dated 21 February 2022.
* Authored an e-lesson on the topic **“Linkage and crossing over**” in ILLL, University of Delhi, South Campus under “National Mission on Education through ICT (NME-ICT)” under the MHRD project.(Online available on 22 September 2015)

<https://drive.google.com/file/d/0B0Izh6GcIA_DTWdJZ0xHNjRRemM/view>

ISSN 2349-154X

* Co-authored an e-lesson on the topic **“Mitosis and Meiosis- A Genetic Perspective**” in ILLL, University of Delhi, South Campus under “National Mission on Education through ICT (NME-ICT)” under the MHRD project.(Online available on 22 September 2015)

<https://drive.google.com/file/d/0B0Izh6GcIA_DS2gwWWlQelpYelE/view>

ISSN 2349-154X

* Co-authored an e-lesson on the topic “**Morphology and Physiology of *Paramecium***” in ILLL, University of Delhi. (June 2015)

<https://drive.google.com/file/d/0B0Izh6GcIA_DaE03TFNQQUtLdjg/edit>

ISSN: 2349-154X

ISBN NO. 978-93-85611-95-7

* Co-authored an e-lesson on the topic “**Extension of Mendelian Genetics**” in ILLL, University of Delhi, South Campus under “National Mission on Education through ICT (NME-ICT)” under the MHRD project.(May 2015)

<https://docs.google.com/file/d/0B0Izh6GcIA_DdVF2azFsa0lkV3c/edit>

ISSN 2349-154X

* Authored an e-lesson on the topic **“Moulting and Metamorphosis in Insects**” in ILLL, University of Delhi.(May 2014)

<https://docs.google.com/file/d/0B0Izh6GcIA_DbTEwNDVnWlkwc1U/edit?pli=1>

ISSN: 2349-154X

ISBN NO. 978-93-85611-96-4

* **Manual prepared** under the **Inspire Internship Programme**for the workshop **“Designing life: Small Experiments”** organized by D.S Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 13-17July, 2015
* **Manual prepared** for the workshop “***Drosophila-* A Smart Model for Biological Studies”** for undergraduate science students from March 17-19, 2015 organized under DBT Star College Project by D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi.
* **Manual prepared** under the **Inspire Internship Programme**for the workshop **“Designing life: Small Experiments”** organized by D.S Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 15-20 December, 2013
* **Manual prepared** for the workshop “**Computational Biology: A workshop for Science Teachers**” organized under DBT Star College Project by D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 9-11 January 2012.
* **Manual prepared** for the **“Workshop for Senior Secondary School Teachers on Building Concepts in Science with Hands-on Activities”** organized by **DSKC, Miranda House** from 25th -27th May 2011.

ORIENTATION/REFRESHER/FDP/Training/Workshops COURSES ATTENDED

* + Attended **NEP 2020 Orientation & Sensitization Programme** under **Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC)** organized by Malaviya Mission Teacher Training Centre North-East Hill University, Shillong from 09/10/2023 to 18/10/2023.
  + Participated in “Hands-on Training program on the Basics of Bioinformatics” from 1st to 2nd June 2023 at IIT Guwahati Biotech Park.
  + Attended a training program on “Freshwater pearl culture for entrepreneurship development” between November 11-13, 2022 at the Department of Zoology, Cotton University
  + Attended UGC Sponsored **Refresher Course in Life Sciences** organised by **North Eastern Hill University,** Shillong in an Online mode from 26th July 2022 to 08th Aug 2022.
  + Participated in “3 days hands-on training on GPS, GIS and baasics of map making” organized by the department of Zoology and Zoological Society Cotton University at Cotton University from 22 March to 24 March 2022.
  + Attended an online 5-days **International Faculty Development Programme on Nanomaterials** organised between 23 Nov 2021 to 27 Nov. 2021 by Department of Physics, St. Mary’s College (Autonomus) Thoothukudi, Tamilnadu.
  + Attended **one week virtual FDP** on **“Digital Skills in Smart Teaching”** from 14 June to 19 June 2021 organized by IQAC of Don Bosco College (Autonomous) Maram Campus, Manipur.
  + Attended **one week FDP** on “**Academic Writing”**  from 18 Feb. 2021 to 24 Feb. 2021, organized by Teaching Learning Centre, Ramanujan College (University of Delhi) under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Training.
  + Attended **two week ID Refresher course/FDP** for **“Advanced Research Methodology Tools and Techniques”** from 30 Jan. 2021-14 Feb. 2021 organized by Teaching Learning Centre, Ramanujan College (University of Delhi) under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Training.
  + Attended **one week FDP** on “**ICT-based Learning and Developing MOOCs for Teaching Process in Higher Education”** from 29 Dec. 2020 to 04 Jan. 2021, organized by Teaching Learning Centre, Ramanujan College (University of Delhi) under the aegis of MHRD Pandit Madan Mohan Malviya National Mission on Teachers and Training.
  + Attended Online National Level Faculty Development programme on **“E-Content Making”** conducted by Servite Arts and Science College for Women (Tamilnadu) from 22-26 June 2020.
  + Attended Online Faculty Development programme on **“Research Methodology Tools & Techniques”** under **Pandit Madan Mohan Malviya National Mission on Teachers and Training Scheme** of MHRD, Govt. of India organised by ARSD College (University of Delhi) in collaboration with Teaching Learning Center, Ramanujan College from 5-11 June, 2020.
    - * Attended Online Faculty Development programme on **“Outcome Based Teaching Learning”** organised by IQAC of Don Bosco College, Maram (Manipur) from 22-29 May, 2020.
* Participated in the Short Term Course on **“Tailoring Technologies for Rural Sector: Development and Dissemination”** conducted under the Technical Education Quality Improvement Programme (TEQIP) by Centre for Educational Technology (CET) IIT Guwahati from 29/10/2018 to 02/11/2018.
* Participated in the DBT sponsored hands-on training on **“Mammalian Cell Culture, Oocyte Manipulation and In-Vitro Fertilization”** conducted by the Advanced State Biotech Hub (Assam) College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati, from 02 May to 06 May 2017.
* Attended **Refresher Course in Environmental Studies/Earth Sciences (ID)** organized by **Centre for Professional Development of Higher Education (UGC-HRDC),** University of Delhi, Delhi-110007 from 13 October 2015 to 04 Nov. 2015.
* Attended **Orientation Programme-95** organized by **UGC-Academic Staff College,** Gauhati University, Guwahati-781014 from 10 June to 07 July 2013.

INVITED TALK

* + Invited talk on **“Entomophagy by Different Tribes of Changlang District Arunachal Pradesh- Opportunities, Threats and Challenges”** in National Seminar on Ethnopharmacology for Bioeconomy: The new paradigm, organized by CSIR North-East Institute of Science and Technology, Jorhat Assam in association with Society for Ethnopharmacology during 28-30 Nov. 2023.
  + Invited talk on **“Apiculture”** in a webinar on **Skill Enhancement Course (SEC I): Apiculture, Aquarium Fish Keeping and Poultry Farming** organized by IQAC in collaboration with Department of Zoology, T.S. Paul Manipur Women’s College, Imphal on 30th January 2023.
  + Invited lecture on **“EPG as a tool to monitor insect feeding: A technological breakthrough”** in the short-term online course on **“Integrated Pest Management (IPM): Effective, Economical and Eco-friendly ways of keeping Insect Pests at Bay”** jointly conducted under the aegis of IQAC by the department of Zoology, Hindu College, University of Delhi with department of Zoology, Cotton University, Assam from 26 Sept. 2020 to 28 Nov. 2020.
  + Invited lecture on **“Pest Control Methods: Use of Endocrine Disruptors: IGRs”** in the short-term online course on **“Integrated Pest Management (IPM): Effective, Economical and Eco-friendly ways of keeping Insect Pests at Bay”** jointly conducted under the aegis of IQAC by the department of Zoology, Hindu College, University of Delhi with department of Zoology, Cotton University, Assam from 26 Sept. 2020 to 28 Nov. 2020.
* Delivered a talk on **“Foldscope as a tool to diagnose bug feeding”** in “International E-Conference on Foldscope and its Applications” on 20 June 2020 invited by Lyallpur Khalsa College, Jalandhar.
* Invited talk on **“Heteropteran diversity of North East India: An area to be explored”** in the National Conference on **“Insect-Plant Biology in 21st Century”** held on Nov. 4-5, 2019 at Deshbandhu College, Kalkaji, New Delhi, India.

CONFERENCES/WORKSHOPS/SHORT-TERM COURSES ORGANIZED

* + Organised a comprehensive capacity-building workshop on **“Museum Collection, Care and Management”** from 16th July to 20th July 2024 in association with the Directorate of Museums, Govt. of Assam at Cotton University.
  + Conducted a short-term online course on **“Integrated Pest Management (IPM): Effective, Economical and Eco-friendly ways of keeping Insect Pests at Bay”** jointly conducted under the aegis of IQAC by the department of Zoology, Hindu College, University of Delhi with department of Zoology, Cotton University, Assam from 26 Sept. 2020 to 28 Nov. 2020.
  + Coordinated a webinar on “**How to read scientific literature? And Introduction to MANAV- the human atlas initiative”** on 06 July 2020 in collaboration with IISER Pune under DBT.
  + Organised an online **“International E-Conference on Foldscope and its applications”** in collaborations with 11 institutions across country from 20-21 June, 2020.
* Conducted one day outreach workshop **“Seeing the Unseen”** under DBT Foldscope project on 03 Sep. 2019 at Pragjyotish Adarsha Vidyalaya, Panjabari, Guwahati.
* Coordinated a one day workshop on **WWF-India Echo Program** for the University students on 04 Dec 2018 at Cotton University, Guwahati.
* Coordinated a one day Workshop on “**Foldscope: Doing science with ease”** under DBT Foldscope project in association with Regional Science Centre, Guwahati for the secondary science teachers and school students under the aegis of DBT on 12 October 2018.
* Conducted one day outreach workshop **“Seeing the Unseen”** under DBT Foldscope project on 27 Nov 2018 at NizPanbari High School, Kamrup, Guwahati.
* Coordinated the first two day “**Cotton University Symposium 2017**”, an annual symposium organized by Cotton College State University on 27 and 28 January 2017.
* Coordinated a two day Coordinated a two day workshop, **“Bioinformatics and Biostatistics: An Introduction”** for the undergraduate college teachers under the aegisof DBT Star College Scheme from February 24-25, 2016 at Miranda House, University of Delhi. Budget- Rs. 50,000/-. Sponsor- Department of Biotechnology
* Coordinated a three day Workshop organized by DS Kothari Centre for Research and Innovation in Science Education and the department of Zoology under the aegis of DBT STAR College Project on **“*Drosophila-* A Smart Model for Biological Studies”** for undergraduate science students from March 17-19, 2015 at Miranda House, University of Delhi. Budget- Rs. 50,000/-. Sponsor- Department of Biotechnology

**PAPER OR POSTER PRESENTED**

* + Anandita Buragohain, Santana Saikia, RubinaAzmeera Begum & **Anjana Singha Naorem** (2020). **Poster Presentation** titled “*Foldscope as an exploratory aid in lockdown times*” in “International E-Conference on Foldscope and Its Applications” from 20-21 June, 2020.
  + Santana Saikia, Namram Sushindrajit Singh and **Anjana Singha Naorem** (2020).**Poster Presentation** titled “*Foldscope as tool to monitor bug’s nymph*” in“International E-Conference on Foldscope and Its Applications” from 20-21 June, 2020.
  + Rubina Azmeera Begum, Santana Saikia, Anandita Buragohain & **Anjana Singha Naorem** (2020). **Poster Presentation** titled “*Foldscope as an exploring tool for students from rural area”* in“International E-Conference on Foldscope and Its Applications” from 20-21 June, 2020.
* **Anjana Singha Naorem,** Santana Saikia, Rubina Azmeera Begum and Anandita Buragohain (2019). **Poster Presentation**  titled “**First Documentation of Diversity of Pentatomidae from Cotton University Campus”** in **107th Indian Science Congress** held at Bengaluru from 03Jan. to .7 Jan 2020.
* **Santana Saikia**, Anandita Buragohain and Anjana Singha Naorem. (2019**). Poster presentation** titled **“Prevalence of Malaria in Tea Tribe Localities of Assam: A Review”** in **12th National Conference on Vector Borne and Zoonotic Diseases** Organized by ZSI held on 25-26 November 2019 at Zoological Survey of India (ZSI), Kolkata.
* **Rubina Azmeera Begum**, Santana Saikia, Anandita Buragohain and Anjana Singha Naorem. (2019). **Poster presented** titled **“Heteroptera Diversity of Two Different Ecosystems of Guwahati”** in International Conference India Biodiversity Meet 2019 held during 19-21 Nov. 2019 at Indian Statistical Institute, Kolkata.
* **Anandita Buragohain**, Rubina Azmeera Begum and Anjana Singha Naorem (2019). **Poster presentation** titled **“Insects: Friend or Foe?”**in **National Conference on Green, Sustainable and Evolving Sciences (GSES-2019) & 64th Annual Technical Session, Assam Science Society** held from 28-29 June 2019 organised by Cotton University, Guwahati, Assam.
* **Anjana Singha Naorem,** Santana Saikia and Namram Sushindrajit Singh. (2019).**Poster presentation** titled **“Heteroptera diversity of horticulture research station, Azara, Guwahati”**in **National Conference on Green, Sustainable and Evolving Sciences (GSES-2019) & 64th Annual Technical Session, Assam Science Society** held from 28-29 June 2019 organised by Cotton University, Guwahati, Assam.
* **Santana Saikia** and Anjana Singha Naorem (2019). **Oral presentation** on the topic **“Heteroptera diversity in Cotton University Campus”**in **“International Multidisciplinary Research Conference on Biodiversity, Climate Change, Physical and Life Sciences”** held from 21-22 January 2019 organised by DHSK College at DHSK College, Dibrugarh, Assam.
* **Santana Saikia** and Anjana Singha Naorem (2018). **Poster presentation** titled**“Climate change and global warming: Impact on cuisine and lifestyle of Assam”** in **Fourth National Symposium on Environment: Green Technology for Environmental Sustainability”** held on 25th September 2018 at Deshbandhu College, University of Delhi, Delhi.
* **Anjana Singha Naorem,** Santana Saikia, Paula Levin Mitchell and Ashok K. Singh (2018). **Oral presentation** on the topic **“Monitoring the feeding of *Nezara viridula* (L.) using EPG**” in the National Seminar on “**Recent Advances in Bio-Sciences & Annual General Meeting of Zoological Society of Assam”** held on 21st and 22nd September 2018 at Department of Zoology**,** Pragjyotish College, Guwahati, Assam.
* **Anjana Singha Naorem,** Paula Levin Mitchell and Ashok K. Singh (2017). **Oral presentation** on the topic **“Characterization of EPG waveforms of *Nezara viridula* (L.) (Hemiptera: Pentatomidae)**” in the national seminar on **Recent Advances in Zoological Research and Integrative Biology** held on 27 and 28 February 2017 at department of Zoology**,** Cotton College, Guwahati, Assam.
* **Anjana Singha Naorem** (2017). **Oral presentation** on the topic **“EPG waveform characterization of *Nezara viridula* (L.) on pigeon pea plants”** in the **Cotton University Research Outreach Meeting** on 15 February 2017 at Cotton College State University, Guwahati, Assam.
* **Anjana Singha Naorem,** Paula Levin Mitchell and Ashok K. Singh (2016). Preliminary Studies on EPG Waveform Characterization of *Nezara viridula* (Hemiptera: Pentatomidae) Using an AC “Missouri” EPG Monitor. **Poster** presented in *International Electropenetrography (EPG) Conference and Workshop on New AC-DC EPG Technology* at Citrus Research and Education Center, University of Florida, Florida (USA) from Oct. 02-07, 2016.
* **Anjana Singha Naorem** (2015)**.** Fish-Poison on the Platter? **Paper presented in** the National Symposium on **Environmental Contamination and Public Health** organized by Zakir Husain Delhi College, University of Delhi, Delhi on August 24, 2015.
* **Anjana Singha Naorem** and Bijaya Thongatabam (2015).Climate Change: A Threat to Agriculture in India**. Poster presented** in DST-SERB supported National Conference on “**Climate Change: Impacts, Adaptation, Mitigation Scenario and Future Challenges in Indian Perspective”** organized by Department of Botany, Deen Dayal Upadhyaya College, University of Delhi on 02-03 March, 2015.
* Jyoti Arora, **Anjana Singha Naorem** and Prerna Aggarwal (2015).Cyclopoid Copepods as a Bio-control Agent against Mosquito Larvae: Opportunities and Challenges. **Poster presented** in National Symposium on **“Vector Biology and Vector Management”** organized by Deshbandhu College on Feb. 12, 2015.
* **Anjana Singha.** Ashok Kumar Singh and Paula Levin Mitchell. (2007). Feeding response of southern green stink bug, *Nezara viridula* (L.) (Hemiptera: Pentatomidae) to neem formulations. **Poster presented in 2007 ESA Annual meeting, Dec. 9-12, San Diego, California.**
* **Anjana Singha,** Vimal Thareja and Ashok K. Singh. (2007). Neem, A Wonder Tree- Its role in pest management. **Poster presented** in the National symposium **“Science of Life: The New Horizon”** organized by Miranda House, University of Delhi from 21-23 November 2007.
* **Singha, A.**; Thareja, V. and Singh, A. K. (2003). Effect of neem seed extract on development of *Nezara viridula.* **Poster presented** in the National Symposium on Frontier Areas of Entomological Research.IARI, New from 5-7 November 2003.

**WORKSHOP MENTOR/ORGANIZING COMMITTEE**

* **Mentor** and the **organizing committee member** in the **Inspire Internship Programme** organized by D.S Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 13-17 July, 2015.
* **Mentor** and the **facilitator** in the summer project “**Flavour of Research”** organized by D.S Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 8 June-10 July, 2015. Under this scheme undergraduate students were guided for the following research projects:
* Effect of antioxidants on longevity of *Drosophila*
* Sustainable antimicrobial finishing of cotton fabrics by eco-friendly bio-active compounds
* **Resource person** for the workshop **“*Drosophila-* A Smart Model for Biological Studies”** for undergraduate science students held between March 17-19, 2015 at Miranda House, University of Delhi.
* **Member** of the **organizing committee**of the workshop “**Natural Dyeing of Textiles”** supported by **DU Innovation Project (MH-203)**, organized by department of Zoology, Miranda House, University of Delhi on 13 March 2015.
* **Mentor** and the **organizing committee member** in the **Inspire Internship Programme** organized by D.S Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 15-20 December, 2013.
* **Mentor and facilitator** at the Summer Workshop “**Experimental Workshop for Undergraduate Science Students”** organized by D.S Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 11 June to 10 July 2013.
* **Member** of the **organizing committee** of the workshop **“Techniques in Biotechnology”** organized by Institute of Life Long Learning and Miranda House, University of Delhi from 9-12 January, 2013 at Miranda House
* **Resource Person** in the workshop “**Computational Biology:A workshop for Science Teachers**” organized under DBT Star College Project by D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from 9-11 January 2012.
* **Mentor** in the **“Workshop for Senior Secondary School Teachers on Building Concepts in Science with Hands-on Activities”** organized by **DSKC, Miranda House** from 25th -27th May 2011.
* **Member** of the organizing committee of the workshops **“Biology Laboratory Course (Course code-LS 206)”** for B.Sc. Programme 2nd year for teachersorganized jointly by Institute of Life Long Learning and D.S. Kothari Centre for Research and innovation in Science Education, Miranda House, University of Delhi at Miranda House from 24-26 September 2008.
* **Member** of the organizing committee of the National symposium ‘**Science of Life: The New Horizon’** organized by Miranda House, University of Delhi from 21-23 November 2007.

**CONFERENCES/SYMPOSIUM/WORKSHOPS ATTENDED**

* + Participated in **“Hands-on Training Program on the Basics of Bioinformatics”** organized by Guwahati Biotech Park on 1st and 2nd June 2023.
  + Participated in National Training Programme on **“Freshwater Pearl Culture for Entrepreneurship Development”** organized jointly by the Department of Zoology, Cotton University, Guwahati and Indian National Pearl Culture Society, Assam, from 11-13th November, 2022.
  + Attended an Online Workshop on **“DNA Barcoding: A Challenge to Linnaeus Classification”** on 03rd and 4th September 2022, organized by CytoGene Research and Development, Lucknow.
  + Participated in **“3 Days Hands-on Training on GPS, GIS, Basics of Map Making”** organized by the department of Zoology, Cotton University and Zoological Society Cotton University, Assam from 22-24 March, 2022.
  + Participated in an online lecture on the topic "**Natural Selection In Action In Laboratory Experiments & Ecology**” On 18 November 2021 organised by MANAV-Human Atlas Initiative, NCCS Pune.
  + Participated in two days Online National Workshop on “**Basics of Design Thinking for Faculty Members**” organized by MES Abasaheb Garware College Pune-411004 during 17 -18 May, 2021.
* Participated in a workshop held in September-October 2020 as a **‘Team Owner’ of the ‘Biocurators’ in MANAV- The Human Atlas Initiative** a citizen science project funded by **DBT GoI** and **co-funded by Persistent Systems Limited.**
* Participated in an online interdisciplinary **“One week certificate course on apiculture”** organized by Department of Zoology, Balwant College, Vita, Sangli (M.S) from 13 July to 19 July 2020.
* Participated in the webinar on **“ Users awareness of National Digital Library of India (NDLI)”** jointly organized by Dr. Surya Kumar Bhuyan Library & IQAC, Cotton University in collaboration with NDLU-NERC, IIT Guwahati on 14 July 2020.
* Participated in the International Webinar on **“Effective usage of ICT tools for higher education”** organizedby Servite Arts and Science College for Women, Tamilnadu on 03-06-2020.
* Participated in a workshop titled “**Gender Equity and inclusion: Transformative Pathways in Higher Education**” organized by Women in Security, Conflict Management and Peace in Collaboration with Cotton University at Cotton University, Guwahati from March 11-14, 2019.
* Participated in a four-day **Capacity Building Programme on Career Guidance and Counselling** organized by Rajiv Gandhi National Institute of Youth Development (RGNYID), Chandigarh in association with the Internal Quality Assurance Cell (IQAC), Cotton University during 24-27 September, 2018 at Cotton University, Guwahati.
* Participated in the **DBT Foldscope Orientation Workshop** organized by Department of Biotechnology, Government of India on 16 April 2018 at International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi
* Participated in a **Guwahati Bird Count Workshop** held at Cotton College State University, Guwahati, Assam on 15 February 2017.
* Participated in a **Workshop on Intellectual Property Rights** held during 30 November to 1 December 2016 at IIT Guwahati.
* Participated in a training workshop in **Animal Behavior** organized by Department of Zoology, University of Delhi from 19th to 25th August, 2015.
* Participated in the **“3rd Training Workshop in *Drosophila*”** organized by ***Drosophila* Stock Center**, Department of Zoology, University of Delhi on 20th and 21st September, 2013.
* Participated in the workshop **“Microscopy: Techniques and Applications”** organized byMiranda House under DBT Star College Project on 27-28 September 2011.
* Participated in the workshop for life sciences faculty **“Phylogenetics: Principles and Practice”** held under the aegis of Institute of Life Long Learning, Department of Botany and DBT Star College Scheme, Sri Guru TeghBahadurKhalsa College held at ILLL, Academic Research Centre, University of Delhi on 27-28 August 2011.
* Participated in National Workshop **“Evolutionary Perspectives in Modern Biological Teaching and Research”** organized jointly by Institute of Life Long Learning, Centre for Science Education and Communication and Acharya Narendra Dev College, University of Delhi at Institute of Life Long Learning from 9-10 May 2011.
* Participated in workshop **“Biology Laboratory Course (Course code-LS 306)”** for B.Sc. Programme 3rdyearorganized jointly by Institute of Life Long Learning and Centre for Promotion of Undergraduate Research and Training, Acharya Narendra Dev College, University of Delhi at Acharya Narendra Dev College from 21-24 October 2008.
* Participated in workshop **“Biology Laboratory Course (Course code-BY 106)”** for B.Sc. Programme 1styearorganized jointly by Institute of Life Long Learning and Daulat Ram College, University of Delhi at Daulat Ram College from 2-4 September 2008.
* Participated in National conference on **“Showcasing Cutting Edge Science & Technology by Women”** an Initiative of the National Task Force for Women in Science, Ministry of Science and Technology, Government of India, held at VigyanBhavan, New Delhi on 8 and 9 March 2008.
* Participated in **“International Symposium on Ciliate Biology- biodiversity, ultrastructure, development, genome, parasitism”** organized by SGTB Khalsa college, University of Delhion 6 and 7 February 2007.
* Participated in **“Lecture-workshop in Molecular Endocrinology & Gamete Biology”** organised by *Indian Academy of Sciences*, Bangalore at Daulat Ram College, University of Delhi on 3 & 4 October 2005.
* Participated in **“National Symposium on Frontier Areas of Entomology”** held at IARI, New Delhi from 5-7 November 2003.

RESEARCH AREAS

* Insect plant Interaction- Behavioral and management of agricultural pest using botanical pesticides
* Experience working on EPG (Electrical Penetration Graph)
* Vector control-Ecologicaland management aspects
* Phytochemical studies on *Drosophila* as a model

EXTRAMURAL CONTRIBUTION (in Cotton University)

* Teacher member in Manik Chandra Baruah National Level Debate Competition-2024
* Engaged in Admission duty UG 2024
* Nodal Person and Member of Website Management Committee Since December 2018-2021
* Convener Disaster Management Cell
  + A talk “**An overview on Disaster Management and ASDMA Initiatives”** was delivered by Shri Rajesh Dutta (Engg. Consultant, ASDMA Dispur) on 12 September 2019 in Department of Zoology, Cotton University.
* Member DRC, Zoology, Since Oct 2017
* Member Unnat Bharat Abhiyan (UBA) Cell, vide letter no. CU/GAD/2018/182/2300-02 dated 05 March 2021.
* Member committee for PG Diploma in Natural History vide letter no. CU/Acad/Evening Courses/2019/149/41 dated 21 Feb 2022.
* Member in sub-committee selection of HS, UG, PG admissions for NCC, NSS &Scouts and Guide quota for the session 2024-25 vide Memo no. CU/DSW/2019/017/(P1P/329 dated 22 May 2024

EXTRAMURAL CONTRIBUTION (in Miranda House)

* Coordinator B.Sc Life Sciences July 2013-June 2014.
* Coordinator Baseline Science Test (Biology) since 2012
* Staff Advisor: MH Vatavaran since June 2014
* Staff Advisor: Placement Cell since June 2014
* Staff Advisor: Jigyasa, the Quiz Society July 2012-June 2014
* Staff Advisor: NE Cell since June 2014
* Staff Advisor: Zoological Society of Miranda House, since July 2009 to May 2016
* Staff Advisor: NSS for two years (2007-2009)