

DR. NIRMALA DEVI

Associate Professor (Chemistry)
Girijananda Chowdhury University, Hathkhowapara, Azara, Guwahati, Assam.
M.Sc., Ph.D. (Chemical Science), Tezpur University, Assam, India

**Research Interests:** Polymers, Plastic Materials and Nanocomposites, Controlled and Smart release of drugs/fertilizers/pesticides, Micro/nano encapsulation, Seed Oil based

resins, Biopolymers, Food Packaging **E-Mail:** nirmaladevi2040@gmail.com

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### Scholar Google URL Link:

https://scholar.google.co.in/citations?user=HDFfV\_8AAAAJ&hl=en Nirmala Devi, Ph.D. - Google Scholar

## Wiki Author Link:

https://as.wikipedia.org/wiki/%E0% A6% A8% E0% A6% BF% E0% A7% B0% E0% A7% 8D %E0% A6% AE% E0% A6% B2% E0% A6% BE %E0% A6% A6% E0% A7% 87% E0% A7% B1% E0% A7% 80

# TEACHING EXPERIENCE

- 1. Associate Professor (Chemistry), Girijananda Chowdhury University, Hathkhowapara, Azara, Guwahati, Assam.
- 2. Senior Assistant Professor in Chemistry, Central Institute of Plastics Engineering & Technology, Jaipur, India.
- 3. Assistant Professor in Chemistry, National Institute of Technology Nagaland, India.
- 4. Adjunct Faculty, Chemistry, Huston-Tillotson University, Austin, Texas, US.

## POST DOCTORAL RESEARCH

- 1. High-efficient Second Century (C2F) Postdoctoral Fellow, Chulalongkorn University, Bangkok, Thailand.
- 2. Pool Scientist (CSIR), Indian Institute of Technology Guwahati, Assam, India.
- 3. UGC-Dr. D.S. Kothari Postdoctoral Fellow, Gauhati University, Assam, India.

## PROFESSIONAL RECOGNITIONS AND AWARDS

- **1. "National Award for Technology Innovation"** by the Ministry of Chemicals and Fertilizers, Government of India, New Delhi, in 2011-2012.
- **2. "Young Scientist Award"** in Chemistry by the International Academy of Physical Sciences, UPES, Dehradun, in 2011.
- **3. "Dr. D. S. Kothari Post-Doctoral Fellowship Award"** by the University Grants Commission (UGC), New Delhi, India in 2010.
- **4.** "Senior Research Associateship", Pool Scientist award by the CSIR, New Delhi, India in 2013.
- **5. "DST-International Travel Grant"** for presenting oral paper in the 11<sup>th</sup> UNESCO/IUPAC workshop and conference on Functional Polymeric Materials & Composites held in **Stellenbosch University**, **South Africa** in April, 2011.
- **6. Best Oral Presentation Award** in National Conference on Environmental Research held in 4-5 June, 2016 in Indian Institute of Technology Guwahati.
- 7. "DST-Senior Scientist International Travel Grant" for presenting paper in the 6<sup>th</sup> International IUPAC conference on Green Chemistry held in Venice, Italy in 4-8 September, 2016.
- **8.** "Woman Scientist Award (WOS-A)" in 2016 by the Department of Science and Technology (DST), Ministry of Science and Technology, Government of India.
- **9.** Indian Academy of Sciences' and Indian National Science Academy's (INSA) Focus Area Science Technology Summer Research Fellow (FAST-SF) Award in 2018.

### RESEARCH PROJECTS AND RESAERCH GUIDANCE

Major Research Project titled "Study of Non-edible Plant-Oils of North-East: Extraction, Compositional Characterization and Analysis for Industrial Applications" (project reference no NEC/ST/NG/862/2016), funded by the North Eastern Council (Ministry of Development of NER) from February, 2017 to March 2020 (3 Years, completed as PI). Total Project Fund: Rs.17,76,000/- (Rs. Seventeen Lakhs Seventy-Six Thousand Only).

Supervised one (01) Junior Research Fellow (JRF) under this project.

2. Major Research Project entitled "Development of Hybrid Polymer Nanocomposites from Waste Plastics and Wood Dust" (project reference no SP/YO/104/2017), funded by the **Department of Science and Technology** (**DST**), **Government of India** from 2017 to 2019 (2 Years, Completed as PI). Total Project Fund: Rs.9, 15,000/- (Rs. Nine Lakhs Fifteen Thousand Only).

Supervised one (01) Junior Research Fellow (JRF) under this project.

- 3. Minor Research Project entitled "Development of plant oil based green polymers and nanocomposites" funded by the ASTEC from 2013 to 2015, Total Project Fund: Rs.1,60,000/- (Rs. One Lakh Sixty Thousand Only).
- 4. Project (minor) entitled "Development of indigenous plant oil based soaps for livelihood security and employment generation in Assam" is sanctioned in 2022.

#### Research Guidance

- Guided One (01) Ph.D. Student as Co-Supervisor (completed). Research Scholar: Ms. Parineeta Das, bearing registration No. 2017262305. Awarded Ph.D. degree from National Institute of Technology Nagaland, India.
- 2. BSMS Materials Science Students for both his Bachelors and Master's Thesis.

## LIST OF PUBLICATIONS WITH IMPACT FACTOR

**1.** Encapsulation of active ingredients in polysaccharide-protein complex coacervates. **N. Devi, M. Sarmah, B. Khatun, T.K. Maji**. *Advances in Colloid and Interface Science*, 239, 2017, 136-146. https://doi.org/10.1016/j.cis.2016.05.009

[Tier 1 Journal, Impact Factor: 15.19]

- 2. Smart porous microparticles based on gelatin/sodiun alginate polyelectrolyte complex. N. Devi and D.K.Kakati. *Journal of Food Engineering*, 117(2), 2013, 193-204. https://doi.org/10.1016/j.jfoodeng.2013.02.018
  [Tier 1 Journal, Impact Factor: 6.203]
- **3.** Acrylonitrile adducts: design, synthesis and biological evaluation as antimicrobial, haemolytic and thrombolytic agent. P.Das, N. Devi, N. Gaur, S. Goswami, D. Dutta, R. Dubey, A. Puzari. Scientific Reports, 13, 2023, 6209. [Tier 1 Journal, Impact Factor: **4.997**]
- **4.** Genipin crosslinked chitosan-κcarrageenan polyelectrolyte nanocapsules for the controlled delivery of isoniazid. **N. Devi and T. K. Maji**. *International Journal of Polymeric Materials* 59, 2010, 828-841. <a href="https://doi.org/10.1080/00914037.2010.484792">https://doi.org/10.1080/00914037.2010.484792</a>
  - ► [This research article was Among Most Cited Article during three years after its publication] [Impact Factor: 2.604]
- **5.** Preparation and evaluation of gelatin/sodium carboxy methylcellulose polyelectrolyte complex microparticles for controlled delivery of isoniazid. **N. Devi and T.K. Maji.** *AAPS Pharm.Sci.Tech.* 10(4), 2009, 1412-1419. <a href="https://doi.org/10.1208/s12249-009-9344-9">https://doi.org/10.1208/s12249-009-9344-9</a> [Q1 Journal, Impact Factor: **4.026**]
- **6.** Influence of organically modified nanoclay and TiO<sub>2</sub> nanopowder on the properties of *Azadirachta Indica* wood flour reinforced high density polyethylene, low density polyethylene, polypropylene and polyvinyl chloride nanocomposite. **V. Rathnam, A. Kichu, N. Dutta, T.K. Maji and N. Devi.** *Journal of Thermoplastic Composite Materials.* 35(10), 2022, 1468-1487. https://doi.org/10.1177/0892705720935968 [Impact Factor: 3.027]
- 7. Synthesis and characterization of neem (*Azadirachta Indica*) seed oil based alkyd resins for efficient anticorrosive coating application. P. Das, N. Sharma, A. Puzari, DK Kakati, N. Devi. *Polymer Bulletin*.78, 2021, 457-479. <a href="https://doi.org/10.1007/s00289-020-03120-8">https://doi.org/10.1007/s00289-020-03120-8</a> [Impact Factor: 2.843]
- **8.** Thermoresponsive submicron-sized core-shell hydrogel particles with encapsulated olive oil. **N. Devi and D.K.Kakati**. *Colloid and Polymer Science*, 2014, 292, 2581-2596. <a href="https://doi.org/10.1007/s00396-014-3309-6">https://doi.org/10.1007/s00396-014-3309-6</a> [Impact Factor: 2.434]
- 9. Microencapsulation of isoniazid in genipin crosslinked gelatin A-κ carrageenan polyelectrolyte complex. N. Devi and T.K.Maji. *Drug Development and Industrial Pharmacy* 36(1), 2010, 56-63. https://doi.org/10.3109/03639040903061355 [Impact Factor: 3.727]
- **10.** A novel microencapsulation of Neem (*Azadirachta Indica A.Juss.*) Seed Oil (NSO) in polyelectrolyte complex of  $\kappa$ -carrageenan and chitosan. **N. Devi and**

**T.K.Maji**. *Journal of Applied Polymer Science*, 113(3), 2009, 1576-1583. https://doi.org/10.1002/app.30038

[Q1 Journal, Impact Factor: 3.125]

- 11. Effect of crosslinking agent on Neem (*Azadirachta Indica A. Juss.*) Seed Oil (NSO) encapsulated microcapsules of κ-carrageenan and chitosan polyelectrolyte complex. **N. Devi and T.K.Maji**. *Journal of Macromolecular Science Part A: Pure and Applied Chemistry* 46, 2009, 1114-1121.https://doi.org/10.1080/10601320903245524 [Impact Factor: 2.229]
- 12. Genipin crosslinked microcapsules of gelatin A and κ-carrageenan polyelectrolyte complex for encapsulation of Neem (*Azadirachta Indica A.Juss.*) seed oil. N. Devi and T.K. Maji. *Polymer Bulletin* 65(4), 2010, 347-362. <a href="https://doi.org/10.1007/s00289-010-0246-5">https://doi.org/10.1007/s00289-010-0246-5</a> [Impact Factor: 2.843]
- **13.** Study of complex coacervation of gelatin A with sodium carboxymethyl cellulose: microencapsulation of Neem (*Azadirachta Indica A. Juss.*) Seed Oil (NSO). **N. Devi and T.K.Maji**. *International Journal of Polymeric Materials* 60, 2011, 1091-1105. https://doi.org/10.1080/00914037.2011.553851 [Impact Factor: 3.570]
- **14.** Study of complex coacervation of chitosan with sodium carboxymethyl cellulose: microencapsulation of neem seed Oil and isoniazid. **N. Devi and D.K.Kakati.** *Journal of International Academy of Physical Sciences*, 15 (2), 2011, 455-476.
- **15.** Development of polyelectrolyte complex microparticles for the encapsulation of isoniazid. **N. Devi, D.K.Kakati and T. K. Maji**. *Macromolecular Symposia*, 313-314, 2012, 69-78. https://doi.org/10.1002/masy.201250308 [Impact Factor: **0.901**]
- **16.** Study of complex coacervation of gelatin A and sodium alginate for microencapsulation of olive oil. **N. Devi, D. Hazarika, C. Deka and D.K.Kakati**. *Journal of Macromolecular Science PartA: Pure and Applied Chemistry*, 49(11), 2012, 936-945. <a href="https://doi.org/10.1080/10601325.2012.722854">https://doi.org/10.1080/10601325.2012.722854</a> [Impact Factor: 2.229]
- **17. N. Devi**. Encapsulation of active agents in natural and smart polymeric materials. Proceedings of national conference on advances in engineering, science and technology, NCET-16. ISBN 9788192958040.
- **18.** Synthesis of curcumin-loaded chitosan phosphate nanoparticle and study of its cytotoxicity and antimicrobial activity. **C Deka, L Aidew, N Devi, AK Buragohain & DK Kakati**. *J Biomater Sci Polym Ed.*, 27(16), 2016, 1659-1673. https://doi.org/10.1080/09205063.2016.1226051 [Impact Factor: 3.517]
- **19.** Synthesis and characterization of Poly (p-phenylenediamine)—TiO2 nanocomposites and investigation of conducting properties for optoelectronic application. **S. Baruah, N. Devi and A. Puzari**. *Materials Science-Poland* 38(2), 2020, 296-304. [Impact Factor: 1.278]

- **20.** One-pot solvent free microwave-assisted aza-Michael addition reaction of acrylonitrile. P Das, N.Devi, A Puzari. Journal of the Indian Chemical Society, 99(5), 100411. <a href="https://doi.org/10.1016/j.jics.2022.100411">https://doi.org/10.1016/j.jics.2022.100411</a> [Impact Factor: 0.243]
- **21.** N. Devi, P. Fuengfoo, R. Magaraphan (2023) Candy floss spinning driven facile exfoliated PLA-clay bionanocomposites: Study of mechanical, thermal, and microstructural properties, Preprint, SSRN: <a href="https://ssrn.com/abstract=4479337">https://ssrn.com/abstract=4479337</a> or <a href="https://dx.doi.org/10.2139/ssrn.4479337">https://dx.doi.org/10.2139/ssrn.4479337</a>

[Tier 1 Journal, Impact Factor: 8]

### Publications as Book Chapters

- **22.** Utilization of Plastic Wastes and its Technologies: An Overview. Arenjungla Kichu and Nirmala Devi (2021). *In: Handbook of Solid Waste Management*, Baskar C., Ramakrishna S., Baskar S., Sharma R., Chinnappan A., Sehrawat R. (Eds.), Springer Nature Singapore. <a href="https://doi.org/10.1007/978-981-15-7525-9\_50-1">https://doi.org/10.1007/978-981-15-7525-9\_50-1</a>
- **23.** Gelatin and Gelatin-Polyelectrolyte Complexes: Drug Delivery. **Nirmala Devi, Chayanika Deka, Dilip K. Kakati and Tarun K. Maji**. (2015). *In: Encyclopedia of Biomedical Polymers and Polymeric Biomaterials*, Dr. Munmaya Mishra (Ed.), ISBN: 97814398796, Taylor and Francis, New York.
- **24.** Neem Seed Oil: Encapsulation and Controlled Release Search for a Greener Alternative for Pest Control. **Nirmala Devi and Tarun K. Maji** (2011). *In: Pesticides in the Modern World Pesticides Use and Management*, Margarita Stoytcheva (Ed.), ISBN: 978-953-307-459-7, InTech, Croatia.
- **25.** Study of Complex Coacervation of Gelatin A and Pectin for Microencapsulation of Theophylline. **Nirmala Devi, Chayanika Deka, Prajnya Nath, Dilip K. Kakati**, *In: Advances in Experimental Medicine and Biology- Infectious Diseases and Nanomedicine-III*, Santosh Thapa and Dr. Rameshwar Adhikar (Eds.), ISBN: 9789811075728, Springer Nature, 2018.
- **26.** Cytotoxicity in Surface Functionalized PAMAM Dendrimers. **Parineeta Das, Nirmala Devi and Amrit Puzari** (2020). *In: Advances in Nuclear Physics and Condensed Matter*, Lakshmi K Singh (Ed.), ISBN:9789388881203, EBH Publishers, India.
- **27.** Cotton (Bombax ceiba) Seed Oil: Applications in the Synthesis of Polymer Resins and Blends. **Parineeta Das, Nirmala Devi, Amrit Puzari**. C. Baskar et al. (eds.), Encyclopedia of Green Materials, Springer Nature. Singapore, 2022 <a href="https://doi.org/10.1007/978-981-16-4921-9\_121-1">https://doi.org/10.1007/978-981-16-4921-9\_121-1</a>

# <u>Lectures delivered in Refresher Courses and FDP's as Resource Person/</u> Invited Lectures:

- 1. Delivered lecture as Resource Person for the refresher course on Teacher Education vis-à-vis Learning Outcome Educational Reform Pedagogy, Assessment and Quality Assurance organized by the UGC-HRDC, Gauhati University during 22/02/2021 to 07/03/2021. [Date of lecture 23/02/2021, [Title of Talk: Teaching in the 21st Century: Moral, Motivation and Dilemmas]
- **2.** Delivered lecture as invited expert in the AICTE ATAL Faculty Development Programme organized by the CIPET Guwahati during 7-11 February, 2022. [Title of Talk: Polyelectrolyte Complexation: Greener and Safer Approaches in Designing Micro and Nanostructures]
- **3.** Delivered lecture as resource person in the AICTE ATAL Faculty Development Programme organized by Central Institute of Petrochemicals Engineering and Technology Guwahati during 2-6 August, 2021. [Title of Talk: Polyelectrolyte Complex Coacervation: Application in Encapsulation and Drug Delivery]
- **4.** Delivered lecture as invited resource person in the AICTE Training and learning (ATAL) Academy, Govt. of India sponsored Faculty Development Programme organized by the Central Institute of Petrochemicals Engineering and Technology Guwahati during 19-23 July, 2021. [Title of Talk: Plastic Materials: Past, Present and Future]
- **5.** Delivered a popular talk as invited expert in CIPET Guwahati on "Advancement on Polymer and its Effects on Environment" held on 31<sup>st</sup> May, 2019, sponsored by the ASTEC.
- **6.** Delivered several lectures as resource person in short term and skill development courses organized by the CIPET Jaipur, Rajasthan during Nov-Dec, 2020.

# PRESENTATION IN INTERNATIONAL CONFERENCES

(Select list Only)

Paper Presented: 23,

Abroad (Outside India): 10, In India:13 Invited: 02, Oral Contributory:17, Poster: 1

- 1. Presented oral paper in the 25<sup>th</sup> Annual Green Chemistry and Engineering Conference organized by the American Chemical Society (ACS) Green Chemistry Institute, USA during 14-18 June, 2021.
- 2. Presented oral paper in the Emerging Material Technologies Summit, EMTS 2018, held on 4-8 November, 2018 at Vietnam National University, Hanoi, Vietnam.
- **3.** Presented oral paper in the International conference on Biomedical and Bioinformatics Engineering (ICBBE 2017) held in Seoul **National University**, **Seoul**, **South Korea** during 12-14 November, 2017.
- **4.** Presented <u>invited lecture</u> in International conference on Advances in Polymeric Materials (APM 2017) held in Indian Institute of Science Bangalore during February 11-13 February, 2017 organized by CIPET.
- **5.** Presented oral paper in International Conference on Emerging Trends in Nanomaterials Science and Technology held in National Institute of Technology Nagaland during 4-6 January, 2017.
- **6.** Presented <u>invited lecture</u> in the 2<sup>nd</sup> International Conference on Infectious Diseases and Nanomedicine held on 15-18 December, 2015 at Kathmandu, Nepal.
- 7. Presented paper in the 6<sup>th</sup> international IUPAC conference on Green Chemistry held on 4-8 September, 2016 at <u>Venice, Italy (Travel Funded by the DST, GOI as Senior Scientist ITS)</u>.
- **8.** Presented oral paper in the *Encapsulation and Controlled Release Fest* held on 25-26 August, 2015 at Edison, **New Jersey, US**.
- **9.** Presented oral paper in the 250<sup>th</sup> American Chemical Society National Meeting and Exposition held on 16-20 August, 2015 at **Boston, US**.
- **10.** Presented oral paper in the International Symposium on Polymer Analysis and Characterization (ISPAC 2015), held on 7-8 June, 2015 at **Houston, TX, US**.
- **11.** Presented oral paper in the *International Conference of Interdisciplinary Studies* held on 16-19 April, 2015 at **San Antonio, Texas, US**.
- **12.** Presented poster paper in the 7<sup>th</sup> Workshop on Electrochemistry held on 7-8 February, 2015 at the Centre for Electrochemistry, The University of Texas at Austin, Texas, US.
- **13.** Participated and presented poster paper in International conference on Electron Microscopy & XXXV annual meeting of EMSI held on 9-11 July, 2014 at University of Delhi, Delhi, India.
- **14.** Presented oral paper in *APA International Conference on Polymers: Vision & Innovations* held on 19-21 February, 2014 at India Habitat Centre, New Delhi.
- **15.** Presented oral paper in *International Conference on Harnessing Natural Resources for Sustainable Development: global Trends* held on 29-31 January, 2014 at Cotton College, Guwahati.

- **16.** Presented oral paper in 3<sup>rd</sup> International Conference on Advanced Nanomaterials & Nanotechnology held on 1-3 December, 2013 at Indian institute of Technology Guwahati.
- **17.** Presented oral lecture in the 3<sup>rd</sup> FAPS Polymer Congress and MACRO-2013, held at Indian Institute of Science, Bangalore during 15-18<sup>th</sup> May, 2013.
- **18.** Participated and presented paper in 18<sup>th</sup> International Conference (Post ISCBC-2012) Perspective and Challenges in Chemical and Biological Sciences: Innovation Cross Roads held on 28-30<sup>th</sup> January, 2012 at Institute of Advanced Study in Science & Technology (IASST), Guwahati.
- **19.** Presented oral paper in 13<sup>th</sup> *International Conference of the International Academy of Physical Sciences on Emerging Interfaces of Physical Sciences and Technology* held on 14-16<sup>th</sup> June, 2011 organized by University of Petroleum and Energy Studies, Dehradun, India. (Awarded Young Scientist Award in Chemistry).
- **20.** Presented oral lecture in 11<sup>th</sup> UNESCO/IUPAC Workshop and International Conference on Functional Polymeric Materials and Composites, held on 26-29<sup>th</sup> April, 2011 at the University of Stellenbosch, Stellenbosch, South Africa. (Travel grant funded by DST, Govt. of India).
- **21.** Presented oral lecture in International conference on *Polymer Science and Engineering-2010(PSE-2010)* held on 26-27<sup>th</sup> November, 2010, organized by University Institute of chemical engineering and Technology, Punjab University, Chandigarh under the auspices of Asian Polymer Association.
- **22.** Presented oral lecture in 5<sup>th</sup> World Neem Conference held during 21–24 November, 2007 at Coimbatore, India.
- **23.** Participated and presented oral lecture of paper in International seminar *on Frontiers in Polymer Science and Technology (POLY-2007)* during 1-3 November, 2007 organized jointly by Prof Sukumar Maiti Polymer Award Foundation, kolkata; Tezpur University, Assam and Jadavpur University, Kolkata, India.

## **National Conferences:**

## Paper Presented: 10 (Invited: 1, Oral Contributory:08 Poster:01)

- 1. Participated and presented oral paper in the *National Conference on Environmental Research* held on 4-5 June, 2016 at Indian Institute of Technology Guwahati Assam, India.
- 2. Participated and presented oral paper in the National school on sustainable polymers and *First Symposium on Advances in Sustainable Polymers (ASP 14)* held on 6-11 January, 2014 at Indian Institute of Technology Guwahati Assam, India.

- 3. Participated and presented paper as <u>invited lecture</u> in *National Seminar on Emerging Trends in Chemical Sciences*-2012, held on 30-31 March, 2012 at Gauhati University, Guwahati
- 4. Participated and presented paper as oral lecture in *National Workshop on Women in Scientific Research-Examining the Challenges and Identifying their Needs*, held on 2-3 March, 2012 at Department of Chemistry, Gauhati University, Guwahati.
- 5. Participation and presentation of oral paper in UGC sponsored *National Seminar* on Frontier Areas of Research in Chemistry, held on 24-25<sup>th</sup> October, 2011, Organised by Department of Chemistry, Cotton College, Guwahati.
- 6. Participation and presentation of oral paper in the UGC sponsored National seminar on *Recent Trends in Phytochemical & Phytopharmaceutical Research and Future Prospects*, organized by Department of Chemistry, Gauhati University, Assam on 26<sup>th</sup> and 27<sup>th</sup> of March 2010.
- 7. Participation and presentation of oral paper in 55<sup>th</sup> Technical Session of Assam Science Society, organized by Gauhati University, Guwahati on 15<sup>th</sup> February 2010.
- 8. Participation and Presentation of paper in *Indian Science Communication Congress*, 2009, held on 20-24<sup>th</sup> December 2009 organized by K.K. Handique State Open University, Guwahati.
- 9. Participation and Presentation of paper in the National seminar on *Recent Trends* in *Polymer Science and Technology*, held in October 25-30, 2008, Organised by IASST, Guwahati.
- 10. Participation and presentation of poster in the 2<sup>nd</sup> Mid-Year Symposium of Chemical Research Society of India held on 21<sup>st</sup> July, 2007 at Indian Institute of Technology (IIT), Guwahati.

## Professional Training/Workshops/hands on training courses etc.

- 1. Participated in *Winter School on Catalysis*, sponsored by DST, Govt. of India, held at Tezpur University, 1-14 February, 2006.
- 2. Participated in the National School on Sustainable Polymers and First Symposium on Advances in Sustainable Polymers (*ASP 14*) held on 6-11 January, 2014 at Indian Institute of Technology Guwahati Assam, India.
- 3. Participated in the *National Workshop on Green Chemistry Practices and Their Applications* organized by Department of Chemistry, Cotton College, Guwahati on 1-4 April, 2007.
- 4. Participated in the Workshop on *Promoting Technology Development*, *Utilization and Transfer*, sponsored by DST, Govt. of India on 20<sup>th</sup> January 2006 at Tezpur University.

- 5. Participated in two-day workshop for preparation of *VISION NER:* 2020 organized by Tezpur University and Sponsored by NEC, Shillong, 22-23 December, 2005.
- 6. Participated in the *National Workshop on Science and Technology for Regional Development* on 3-6 February 2004 held at IIT, Guwahati.

## SOCIAL AND COMMUNITY SERVICE

1. Authored several articles in newspapers and magazines for science communication on water, environment, nutrition etc and on self-help in The Assam Tribune, magazines like GNRC Swasthya, Swasthya Barta, Baro-Uthoro and Bijnan Jeuti (ISSN 2319-3085), a popular science magazine published by the Assam Science Society). More than 100 articles are authored by me in Assamese language relating to science, materials, society, sustainable development and to inspire young minds in leading local News-papers and Magazines.

### 2. REGULAR COLUMNS IN ASSAMESE NEWS PAPERS/MAGAZINES

- 'Khadya, Suwad aru Rasayan' in Dainik Asom (Completed)
- 'Jiwan-Anweshan' in Niyomiya Barta (Continuing, 8 years)
- 'Andymahir Tukabohi' in Baro-Uthoro Magazine (Continuing, 2 years)

## 4. BOOKS ON SELF-HELP, MOTIVATION AND FOOD CHEMISTRY

(i) **Prabal Ichashakti aru atmotkarshar Sadhana**, published in October, 2018. The second edition of the book was published in 2020.

Publisher: Purbayon Publication, Guwahati

ISBN: 978-93-87263-96-3

(ii) **Lakhya Ek Manushyatwa**: Agradhikar aru natun Abhyash Gathanere Safalyar Adamya Abhijan, Published in January, 2021.

Publisher: Purbayon Publication, Guwahati

ISBN: 978-93-90589-83-8

(iii) **Jivan Gorhar Prerona**, Published in December, 2021.

Publisher: Students' Stores, College Hostel Road, Panbazar, Guwahati.

ISBN: 978-81-948512-7-1

(iv) Khadya aru Swasthyar Sadhana, November, 2022.

Publisher: Assam Publishing Company, Guwahati

**5.** Worked as honorary state coordinator of Assam and Nagaland Chapter for a non-profit organization named Alttech Foundation for Pan India Water Initiative called "1000 Women Water Transformers' with global water experts.

## PEER REVIEWER

Date: 11<sup>th</sup> August, 2023 Place: Guwahati, Assam

- 1. ACS Food Science & Technology (2022 ACS publication peer reviewer)
- **2.** Journal of Agriculture and Food Chemistry (ACS)
- 3. Food Packaging and Shelf Life (Elsevier)
- 4. Scientific Reports (Nature Portfolio)

# MEMBERSHIP OF SCIENTIFIC & PROFESSIONAL BODIES

- (1) Member of American Chemical Society (Member Number: 30848163)
- (2) Life Member of Asian Polymer Association (Membership No. L 304)
- (3) Life Member of Indian Science Congress Association (Membership No. L 23722)
- (4) Life Member of Assam Science Society (Membership No. 4915)
- (5) Life Member of **Electron Microscope Society of India** (Membership No. LM-1045)
- (6) Green Chemistry Network (GCN) (Associate Member)
- (7) Natures Beckon (Annual Member)

(DR. NIRMALA DEVI)

Niemala Derri