ABHINANDAN KALITA
Ph. No. 8638552443
Email: abhinandan_ece@gcuniversity.ac.in

OBJECTIVE:

To employ my proven skills as a responsible member of the organization and to be an asset towards the progress of the organization. To achieve career satisfaction and to develop strong bonds with colleagues.

STRENGTHS:

Balanced group behaviour with leadership qualities, have the capacity to work for long hours and even under pressure.

EDUCATION QUALIFICATION:

SL. No.	Examinations	Board/University	Year of Passing	Div./Class
1.	(Ph. D), Doctor of Philosophy	NIT-Meghalaya	Pursuing	I
2.	(M. Tech), Master of Technology in Electronics & Communication Technology	Gauhati University	2012	I
3.	(B.E.), Bachelor of Engineering in Electronics & Telecommunication Engineering	Gauhati University	2010	I
4.	(HS), Higher Secondary in Science	Assam Higher Secondary Education Council (AHSEC)	2006	I
5.	(HSLC), High School Leaving Certificate	Board of Secondary Education Assam (SEBA)	2004	I (STAR)

FUNDED PROJECT:

Completed a research project entitled "Early Detection of Diabetic Retinopathy" as **Principal Investigator**, with a research grant of Rs. 3,00,000/- funded by the World Bank under the Collaborative Research Scheme of the TEQIP-III Programme, MHRD, New Delhi (July 2019- March 2021).

WORK EXPERIENCE:

- TEACHING: (15 years)

(1) Working as an **Assistant Professor** in the Department of Electronics and Communication Engineering at Girijananda Chowdhury University, Assam (1st August'2012- till date)

(2) Worked as a **Guest Faculty** for B. Tech and M. Tech Programme in the Department of Electronics and Communication Engineering, Gauhati University, Assam, during the 2011-12 sessions.

- RESEARCH: (8 years)

(1) Research experience during M. Tech final year [1 year]
(2) PhD (ongoing) [5 years]
(3) MHRD (TEQIP-III) funded project [1 year 8 months]

ADDITIONAL QUALIFICATION:

(1) Certificate in **Software Design and Implementation** (**6 Months**).
(2) Certificate in **C/C++** programming.
(3) Post Graduate Diploma in Computer Application (**PGDCA**) [**1 Year**]

RESEARCH AND PUBLICATIONS:

- Patents:

(1) Abhinandan Kalita and Ritushree Dutta, inventors; Deep Learning Based Brain Stimulation Device, Indian Design Patent, Design No. 490569-001, Award Date: 16-03-2026.

(2) Rahul N.N., Abhinandan Kalita et al., inventors; Diabetes Patient Monitoring System using Lightweight DL Model for Risk Assessment. Indian Patent 202541050086 A, Date of publication: 30-05-2025.

- Book Chapters:

(1) Shaw T, Kalita A. Agro automatic weather station. In: Data-Driven AI: A Multidisciplinary Approach – Techniques, Applications, and Insights from Multiple Domains. London: CRC Press, Taylor & Francis Group; 2025. pp. 84–91. ISBN: 978-1-041-27236-6. doi:10.1201/9781003753377.

- Journals:

(1) Abhinandan Kalita, "In-depth Understanding of LSTM and its recent advances in lung disease diagnosis", World Journal of Advanced Research and Reviews, eISSN: 2581-9615, CODEN(USA): WJARAI, Impact Factor: 7.8, Vol. 14, Issue 03, Pg. 517–522, June 2022. DOI: https://doi.org/10.30574/wjarr.2022.14.3.0602

(2) Abhinandan Kalita, "Detection of COVID-19 using Modified VGG Architectures", International Journal of Current Science Research and Review, ISSN: 2581-8341, Impact Factor: 5.995, IPI Value: 2.87, Vol. 05, Issue 06, Pg. 2113-2118, June 2022. DOI: 10.47191/ijcsrr/V5-i6-40

(3) Abhinandan Kalita, "Vessel Detection using Morphological Operations on Fundus Images", International Research Journal of Engineering and Technology, e-ISSN: 2395-0056, Impact Factor: 7.529, Volume 7, Issue 6, Pg 7661-7667, June, 2020. https://fasttrackpublications.com/volume-7-issue-06

(4) Abhinandan Kalita, "Early Detection of Diabetic Retinopathy", International Journal of Advanced Research in Science, Engineering and Technology, e-ISSN: 2350-0328, Impact Factor: 6.646, Volume 7, Issue 6, Pg. 14249-14256, June, 2020. http://www.ijarset.com/volume-7-issue-6.html

(5) Abhinandan Kalita, "Feature Set for the Extraction of Exudates for the Analysis of Diabetic Retinopathy", International Journal for Research in Engineering Application and Management, UGC Journal No.-64077, ISSN-2454-9150, Impact Factor: 5.646, Vol. 05, Issue 03, Pg. 469-472, June, 2019. https://www.ijream.org/IJREAM_V05I03.html

(6) Abhinandan Kalita, "Exudates Detection in Fundus Images", International Journal of Computer Sciences and Engineering, UGC Journal No.-63193, ISSN-2347-2693, Impact Factor: 2.638, Page 516-521, Vol. 07, Issue 06, June, 2019. https://doi.org/10.26438/ijcse/v7i6.976980

(7) Abhinandan Kalita, "Microaneurysm Detection in Fundus Images", International Journal for Research in Engineering Application and Management, UGC Journal No.-64077, ISSN-2454-9150, Impact Factor: 5.646, Pg. 408-412, Vol. 04, Issue 02, May, 2018. DOI : 10.18231/2454-9150.2018.0179

(8) Abhinandan Kalita, "Analysis of Diabetic Retinopathy based on Texture Properties of Retinal Images", International Journal of Computer Sciences and Engineering, UGC Journal No.-63193, ISSN-2347-2693, Impact Factor: 2.638, Page 516-521, Vol. 06, Issue 05, May, 2018. https://doi.org/10.26438/ijcse/v6i5.516522

(9) Abhinandan Kalita, Md. Sajjad Hossain and Kandarpa Kr. Sarma, "A New Approach to Image Denoising based on Wiener-LMMSE Scheme", International Journal of Computer Applications (IJCA), Vol. 45, No. 22, pp. 41-47, ISSN: 0975-8887, Impact Factor: 0.745, May 2012. 10.5120/7084-9778

(10) Abhinandan Kalita and Md. Sajjad Hossain "DWT-DCT Based Iris Recognition Technique Using Self Organizing Map Neural Network," International Journal of Graphics and Image Processing (IJGIP), ISSN: 2249 – 5452, Impact Factor: 3.26, Vol. 2, Issue 2, Pg. 98-104, May 2012. https://www.academia.edu/49472093/ DWT_DCT_Based _Iris_Recognition_Technique_Using_Self_Organizing_Map_Neural_Network?uc-sb-sw=3223192

- Conferences:

(1) Tavishi Shaw, Abhinandan Kalita, 'AGRO Automatic Weather Station', 2nd International Conference on Data Driven AI (ICDDA-2025) organized by The Assam Kaziranga University, Assam, India, 7-9, May 2025. Book of abstracts: Data Driven AI (ISBN No. 978-93-91883-90-4) Page 45.

(2) Abhinandan Kalita, P. Rangababu and Shaik Rafi Ahamed, "A Featherlight CNN-based Method for COVID-19 Detection," 4th Research Conclave-2023 organized by National Institute of Technology, Meghalaya, Shillong, India, during 28th February to 1st March 2023.

(3) Abhinandan Kalita, P. Rangababu and Shaik Rafi Ahamed, "Detection of COVID-19 using a Deep Neural Network with Transfer Learning Approach," IEEE International Conference on Smart Technologies and Systems for Next Generation Computing organized by IFET College of Engineering, Villupuram, Tamil Nadu, India during 25 - 26, March 2022.

(4) Abhinandan Kalita, P. Rangababu and Shaik Rafi Ahamed, "A Study of LSTM and its Importance in Diagnosing COVID-19," 3rd Research Conclave-2022 organized by National Institute of Technology, Meghalaya, Shillong, India, during 28th February to 1st March 2022 [2nd best paper award (Oral Presentation-Engineering)].

(5) Abhinandan Kalita and P. Rangababu, "A Study of Ultrasound Elastography and Chest CT in the Diagnosis of COVID-19 Pneumonia," 2nd Research Conclave-2021 (Poster Presentation) organized by National Institute of Technology, Meghalaya, Shillong, India, during 28th February to 1st March 2021.

(6) Abhinandan Kalita and Rajesh Kalita, "Early Detection of Diabetic Retinopathy," 3rd National Conference in Recent Advances in Science and Technology (Poster Presentation) organized by Assam Science and Technology University, Guwahati (Under TEQIP-III), August 17-19, 2020.

(7) Abhinandan Kalita, Anjan Kr. Talukdar and Kandarpa Kr. Sarma, "Comparative Analysis of Different Wavelet Families with a New Adaptive DWT based Image Denoising Technique," International Conference on Electronics and Communication Engineering (ICECE-2012), Guwahati, India, pp. 82-92, ISBN: 978-93-81693-56-8, January 2012.

(8) Abhinandan Kalita, Anjan Kr. Talukdar and Kandarpa Kr. Sarma, "Medical Image Denoising Using Adaptive Threshold Based on Wavelet Transform," International Conference on Electronics and Communication Engineering (ICECE-2012), Guwahati, India, Pg. 101-107, ISBN: 978-93-81693-56-8, June, 2012.

PROFESSIONAL MEMBERSHIPS:

(1) Professional Member: Institute of Electrical and Electronics Engineers (IEEE) with Membership ID 94324988.
(2) Life Member: Indian Society for Technical Education (ISTE), an organization for promoting the quality and standards in technical education with Membership ID- 100352.
(3) Professional Member: Association for Computing Machinery (ACM) with Membership ID 3834825.
(4) Life Member: International Association of Engineers (IAENG).
(5) Life Member: International Society for Research & Development (ISRD) with Membership ID M4150901588.
(6) Member of Resonics, Gauhati University -A society for promotion of education and research in electronics and related area.
(7) Member of Anurunan- A periodical published by Resonics (ISSN 2278-439X), Gauhati University.

ADMINISTRATIVE RESPONSIBILITIES HELD:

Actively contributed to institutional administration through leadership and membership roles in various academic and administrative bodies. Served as Coordinator/Co-coordinator/Member in key institutional units, including AICTE IDEA Lab, Incubation Centre, NAAC Committee, Institutional Innovation Council, Mentoring Committee, and Website Committee. Organized and coordinated over 50 academic and extension activities (FDPs, workshops, cultural events, outreach programs). Played a vital role in policy formulation (Incubation Policy), accreditation processes (NBA), admission coordination, and institutional development activities. Contributions also include coordination of national initiatives (AICTE EBSB, Azadi Ka Amrit Mahotsav), industrial visits, alumni engagement, and student support services, fulfilling criteria under institutional governance and extension activities.

ACHIEVEMENTS:

Demonstrates a strong record of academic excellence, professional recognition, and multi-dimensional accomplishments from early education to an advanced academic career. Achieved high national and state rankings in competitive examinations, including top percentiles in national aptitude tests and Olympiads. Recipient of prestigious government scholarship (NEC) during postgraduate studies. Recognized for academic and professional contributions through repeated appointments as examiner, paper-setter, moderator, and reviewer for reputed universities and journals. Played key roles in organizing academic events and contributed to national initiatives such as the Smart India Hackathon, earning certificates of exceptional contribution. Awarded research funding under TEQIP-III as Principal Investigator and received accolades, including “IDEA Guru” by AICTE and a Best Paper Award at an international research conclave. Active engagement in co-curricular and social initiatives is reflected in achievements in sports, music, and community service, highlighting a well-rounded personality with a focus on leadership, research, and societal impact.

TRAINING/WORKSHOPS/SEMINARS ATTENDED:

Demonstrates continuous professional development through extensive participation in over **80+** national and international trainings, workshops, seminars, FDPs, and conferences across premier institutions such as IITs, NITs, and reputed universities. The training profile spans core and emerging areas of Electronics and Communication Engineering, including signal processing, VLSI design, embedded systems, image processing, artificial intelligence, machine learning, high-performance computing, and Industry 4.0 technologies. Actively engaged in AICTE, TEQIP-III, ATAL Academy, NPTEL, and UGC-sponsored programmes, with several certified FDPs and refresher courses, including long-duration courses in AI/ML, data science, and electronic device fabrication. Early career training in robotics, microcontrollers, and telecommunications laid a strong technical foundation. At the same time, recent engagements reflect a shift toward advanced interdisciplinary domains such as healthcare AI, cyber-physical systems, and innovation/entrepreneurship. Participation also includes academic leadership, NEP 2020 orientation, universal human values, and pedagogical training, indicating commitment to outcome-based education and holistic teaching practices. Industrial exposure through technical training, industrial visits, and outreach programmes further strengthens industry-academia linkage and practical orientation.

DECLARATION

I hereby declare that the above statements made in this application are true and correct to the best of my knowledge and belief.

Place: Guwahati (Assam), India

Abhinandan Kalita