

## Curriculum Vitae

1. Name (Block Letters) : Dr. ADITYA BIHAR KANDALI
2. Father's/Mother's/ Husband's Name : Late Gopal Chandra Sarmah Kandali (Father)  
Mrs. Rani Mai Kandali (Mother)
3. Current Designation : Professor
4. Department : Electrical Engineering
5. Institute : Jorhat Engineering College
6. Address for correspondence (with pin code) : **Department of Electrical Engineering  
Jorhat Engineering College  
Jorhat -785007 (Assam)**
7. Permanent address( with pin code) : Seuj Nagar, Tarajan Kakaty Gaon,  
Jorhat-785001, Assam
- Telephone No : 9854104118  
E –mail : abkandali@gmail.com

8. Educational qualification (HSLC onwards)

| Qualification          | Board/University   | Year of obtaining degree | Specialization  |
|------------------------|--------------------|--------------------------|---|
| A.I.S.S.E. Class X     | C.B.S.E. New Delhi | 1980                     | English, Science, Social Studies, Mathematics, Assamese, Crafts                                   |
| A.I.S.S.C.E. Class XII | C.B.S.E. New Delhi | 1982                     | English, Physics, Chemistry, Mathematics, Biology, SUPW   |
| B.E.                   | Gauhati University | 1987                     | Electrical Engineering  |
| M.Tech                 | I.I.T. Kharagpur   | 1993                     | Electronics and Electrical Communication Engineering (Automation and Computer Vision Engineering) |

9. Research Degree(s):

| Degree | Name of the University | Date of award                    | Title  |
|--------|------------------------|----------------------------------|--|
| Ph.D   | I.I.T. Kharagpur       | 15 <sup>th</sup> September, 2012 | Classification of Discrete Emotions in Speech using Prosodic and Spectral Features: Intra- and Cross-lingual Studies in Five Native Languages of Assam |

10. Details of Teaching/Research/Academic experience:

| Designation                | Employer   | Period of Service |            | Scale of Pay   |
|----------------------------|--|-------------------|------------|--|
|                            |  | From              | To         |  |
| Lecturer                   | Department of Higher Education (Technical), Govt. of Assam | 05-05-1989        | 05-05-1997 | Rs.2200-75-2800-100-4000/- p.m. as per 4 <sup>th</sup> Pay Commission 1986 (AICTE scale) |
| Lecturer                   | Department of Higher Education (Technical), Govt. of Assam | 05-05-1996        | 05-05-1997 | Rs.8000-275-13500/- as per 5 <sup>th</sup> Pay Commission 1996 (Jan) onwards             |
| Senior Lecturer            | ----- do -----   | 06-05-1997        | 26-09-2001 | Rs.10000- 325-15200/- p.m.   |
| Assistant Professor (Lien) | Ministry of Defence, Govt. of India                        | 27-09-2001        | 15-09-2003 | Rs.12000- 375-18300/- p.m.   |
| Senior Lecturer            | Department of Higher Education (Technical), Govt. of Assam | 16-09-2003        | 19-08-2005 | Rs.10000- 325-15200/- p.m.   |
| Assistant Professor        | ----- do -----   | 20-08-2005        | 31-12-2005 | Rs.12000- 375-18300/- p.m.   |
| Assistant Professor        | ----- do -----   | 01-01-2006        | 19-08-2008 | Rs.15600-39100 with AGP Rs.8000/- p.m. as per 6 <sup>th</sup> Pay Commission 2006 (Jan)  |

|                     |                |            |            |   |
|---------------------|----------------|------------|------------|---|
|                     |                |            |            | onwards   |
| Associate Professor | ----- do ----- | 20-08-2008 | 15-09-2012 | Rs.37400-67000/- with AGP Rs.9000/- p.m. as per 6 <sup>th</sup> Pay Commission 2006 (Jan) onwards |
| Professor           | ----- do ----- | 16-09-2012 | 31-12-2015 | Rs.37400-67000/- with AGP 10000/- p.m. as per 6 <sup>th</sup> Pay Commission (Jan) onwards        |
| Professor           | ----- do ----- | 01-01-2016 | Till Date  | Entry Pay of Rs. 53000/- p.m. as per 7 <sup>th</sup> Pay Commission 2016 (Jan) onwards            |

#### 11. Details of publication

##### **Journals**

##### **Book/e-book/book Chapter :**

1. Goswami, J.G. and Kandali, A.B., "Feature Recognition Using Basic Tools", International Journal of Electronics & Communication Technology (IJECT) Vol. 6, Issue 3, July - Sept 2015.
2. Goswami, H. and Kandali, A.B., "Spatial Filtering and Morphological Operation as Pre-Processing Steps in Fingerprint Feature Extraction", Communications on Applied Electronics (CAE) - - ISSN : 2394-4714, Foundation of Computer Science FCS, New York, USA, Vol 2, No.5, July 2015 - [www.caeaccess.org](http://www.caeaccess.org)
3. Pegu, B. and Kandali, A.B., "Online Signature Recognition using Neural Network", Int. J. Emerging Trends & Technology in Computer Science (IJETTCS) - ISSN 2278-6856, Vol 4, Issue 4, July-Aug 2015 - [www.ijettcs.org](http://www.ijettcs.org)
4. Kalyan Bhattacharyya and Aditya Bihar Kandali, "Paper KB Text dependent speaker recognition", International Journal for Scientific Research & Development, Vol. 4, Issue 12, 2017, ISSN (online): 2321-0613 pp 368-371
5. Abhishika Baruah and Aditya Bihar Kandali, "Motion Detection Using an Improved Frame Difference Method", International Journal of New Technologies in Science and Engineering, Vol. 5, Issue. 3, pp 126-132, 2018, ISSN 2349-0780
6. Mr. Chirajeev Sarmah and Aditya Bihar Kandali, "Solar Panel Cleaning Robot", International Journal for Research in Engineering Application & Management, IJREAM-V05-I02-50125, May2019, Vol -05, Issue -02

##### **Conferences**

1. Pinki Bikomiya Deori and Aditya Bihar Kandali, "Synchronization and Chaos Control of Heavy Symmetric Chaotic Unknown Gyroscope Using MQRBVSC", International Conference on Intelligent Control Power and Instrumentation, 2016, pp12-16, 978-1-5090-2638-8/16/\$31.00©2016 IEEE

2. M. S. Kaushik and A. B. Kandali, "Recognition of facial expressions extracting salient features using local binary patterns and histogram of oriented gradients," *2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)*, 2017, pp. 1201-1205, IEEE, doi: 10.1109/ICECDS.2017.8389632.
3. R. Saikia and A. B. Kandali, "DWT-ELBP based model for face recognition," *2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)*, 2017, pp. 1348-1352, IEEE, doi: 10.1109/ICECDS.2017.8389663.
4. D. Bora and A. B. Kandali, "Wavelet packet based fusion of IR and gray image," *2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)*, 2017, pp. 2281-2284, IEEE, doi: 10.1109/ICECDS.2017.8389859.
5. R. R. Kumar, A. Kumari, S. Dutta and A. B. Kandali, "Design and Comparative Analysis of Halbach array and Surface mounted magnetic pole Dual rotor De-Coupled Stator Six-Phase Permanent Magnet Synchronous Generator for Wind power Application," *2020 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, 2020, pp. 1-6, doi: 10.1109/PEDES49360.2020.9379803.

12. Area of Specialization: Signal Processing (Speech)

13. Areas of Research Interest : Signal Processing, Speech Processing, Image Processing, Pattern Recognition and Machine Learning

14. M.Tech Dissertation Supervised

| Sl No. | Name of Student            | Dissertation  | Year | Status    |
|--------|----------------------------|---|------|-----------|
| 1.     | Mr. Joy Gopal Goswami      | Feature Recognition Using Basic Tools   | 2015 | Completed |
| 2.     | Ms. Himangkona Goswami     | Spatial Filtering and Morphological Operation as Pre-Processing Steps in Fingerprint Feature Extraction | 2015 | Completed |
| 3.     | Ms. Babita Pegu            | Online Signature Recognition using Neural Network   | 2015 | Completed |
| 4.     | Ms. Pinki Bikomiya Deori   | Synchronization and Chaos Control of Heavy Symmetric Chaotic Unknown Gyroscope Using MQRBVSC            | 2016 | Completed |
| 5.     | Mr. Kalyan Bhattacharyya   | Text-Dependent Speaker Recognition  | 2016 | Completed |
| 6.     | Mr. Manish Shankar Kaushik | Facial Expression Recognition Using Histogram of Oriented Gradients (HOG) based                         | 2017 | Completed |

|     |                      |  |      |           |
|-----|----------------------|--|------|-----------|
|     |                      | on Local Binary Pattern (LBP) Extracted from Facial Landmarks  |      |           |
| 7.  | Mr. Rabul Saikia     | Elliptical Local Binary Pattern (ELBP) and DWT based Face Recognition                                    | 2017 | Completed |
| 8.  | Mr. Dhruvajyoti Bora | Fusion of Infra Red and Visible Image Using Wavelet Packet Transform                                     | 2017 | Completed |
| 9.  | Ms. Namita Saikia    | Speaker Recognition  | 2017 | Completed |
| 10. | Ms. Abhisikha Baruah | A Pedestrian Detection System in Real Time   | 2018 | Completed |
| 11. | Mr. Chiranjib Sarma  | Solar Panel Cleaning Robot   | 2019 | Completed |
| 12. | Ms. Disha Saraswat   | A Comparative Study Towards Implementing An Effective Text-To-Speech System                              | 2019 | Completed |
| 12. | Ms. Rupsikha Borah   | Speaker Recognition in an unsupervised environment using MFCC  | 2019 | Completed |
| 12. | Ms. Chandita Barman  | Comparison of Speaker Recognition by Training Emotion Specific Speaker GMM and Mixed Emotion Speaker GMM | 2022 | Completed |
| 13. | Ms. Rosy Bordoloi    | Speech to Text Conversion in Assamese Language   | 2022 | Ongoing   |

#### 15. PhD Thesis Supervised

| Sl No. | Name of Student              | Research Topic  | Year of registration | Status                               |
|--------|------------------------------|---|----------------------|--------------------------------------|
| 1.     | Mr. N. K. Kaphungkui         | Text Dependent Speaker Recognition  | 2017                 | Ongoing (Submission Process Started) |
| 2.     | Mr. Gurumayum Robert Michael | Vocal Emotion Recognition Using Native Language of Manipuri Using Speech signal Processing Techniques | 2017                 | Ongoing (Submission Process Started) |
| 3.     | Mr. Manish Shankar Kaushik   | Detection of Digital Image Forgery Using  | 2019                 | Ongoing                              |

|    |                       |   |      |         |
|----|-----------------------|---|------|---------|
|    |                       | Forensic Digital Image Processing                                 |      |         |
| 4. | Ms. Kakoli Goswami    | Electrical Load Forecasting in Assam, India                       | 2019 | Ongoing |
| 5. | Mr. Pranabjyoti Lahon | Smart Grid stability prediction using Machine Learning Techniques | 2019 | Ongoing |

#### 16. Professional membership

| Sl No. | Details     | Organisation                          | Year      |
|--------|-------------|---------------------------------------|-----------|
| 1.     | Life Member | Institute of Engineers India          |           |
| 2.     | Life member | Indian Society of Technical Education | From 1995 |

#### 17. Details of participation in Faculty Development program/STTPs/Training activities

| Sl No. | Details of FDP/STTPs/Training activities attended                                       | Organisation   | No of days | Year |
|--------|---|--|------------|------|
| 1.     | AICTE-QIP STC on Genetic Algorithms for Engineering Optimization                        | Department of Mechanical Engineering, IIT Guwahati.  | 05         | 2015 |
| 2.     | AICTE-NEQIP STC on Disaster Management  | Dept. of Civil Engineering, Jorhat Engineering College, Jorhat-785007, Assam.                | 05         | 2015 |
| 3.     | AICTE-NEQIP STC on Recent Advances in Civil Engineering                                 | Dept. of Civil Engineering, Jorhat Engineering College, Jorhat-785007, Assam.                | 05         | 2015 |
| 4.     | Workshop on Advanced Matlab and its Applications (TEQIP-3, MHRD)                        | Department of Instrumentation Engineering, Jorhat Engineering College, Jorhat-785007, Assam. | 02         | 2018 |
| 5.     | MHRD STC on Induction Training  | National Institute of Technical Teachers' Training and Research, Kolkata                     | 11         | 2018 |
| 6.     | MHRD STC on Faculty Development Programme   | Teaching Learning Centre Indian Institute of Technology Madras                               | 05         | 2018 |
| 7.     | Multimedia Signal Processing, and Selected Topics on Control System STC (TEQIP-3, MHRD) | Dept. of Electrical Engineering, Jorhat Engineering College, Jorhat-785007, Assam.           | 12         | 2018 |
| 8.     | Data Analysis using Microsoft Excel-2010/2013 (Advance Level) STC (TEQIP-3, MHRD)       | Department of Electrical Engineering, Jorhat Engineering College, Jorhat-785007, Assam.      | 04         | 2018 |
| 9.     | Faculty Development Programme on Recent Advances in Photonics                           | Dept. of Instrumentation Engineering, Jorhat Engineering College, Jorhat-785007, Assam.      | 06         | 2018 |
| 10.    | Professional Development Training for Heads of Departments                              | IIM, Udaipur   | 05         | 2019 |

|     |  |   |    |      |
|-----|--|---|----|------|
| 11. | First Research Scholars' Meet  | Assam Science and Technology University, Guwahati             | 01 | 2019 |
| 12. | National Seminar on "Recent Challenges in Smart Grid"                  | Dept. of Electrical Engineering, Kaziranga University, Jorhat | 01 | 2019 |
| 13. | Workshop on Gender Sensitization and Women Empowerment (TEQIP-3, MHRD) | Women Cell, Jorhat Engineering College, Jorhat-785007, Assam. | 01 | 2019 |

18. List of short term courses organised/Conferences arranged/Course modules developed

| Sl No. | Details of STTP/conferences organised | Venue | Date |
|--------|---------------------------------------|-------|------|
|        |                                       |       |      |

19. Chair in Conference/ Invited Lecture/ Key note speaker:

- Expert Talk delivered in National Seminar on Recent Challenges in Smart Grid (NSRCSG-2019) on "Application of Digital Signal Processing in Development of Smart Grid"

20. Details of R&D Projects : NIL

| Sl No. | Details | Organisation | Year | Status     | Amount |
|--------|---------|--------------|------|------------|--------|
|        |         |              |      | PI / Co PI |        |

21. Details of Major Consultancy Projects involved: NIL

| Sl No. | Details | Organisation | Year | Amount |
|--------|---------|--------------|------|--------|
|        |         |              |      |        |

22. Other information:

| Sl No. | Details   | Organisation                            | Year                 |
|--------|---|---|----------------------|
| 1.     | Participated as member of State Advisory Committee (SAC) of Assam Electricity Regulatory Commission in the following meetings:<br>(a) 27 <sup>th</sup> Meeting of SAC on 19-12-2020<br>(b) 28 <sup>th</sup> Meeting of SAC on 23-09-2021<br>(c) 29 <sup>th</sup> Meeting of SAC on 23-02-2022 | Assam Electricity Regulatory Commission | 2020<br>2021<br>2022 |
| 2.     | Participated as member in the following Board of Studies Meeting of ASTU:-<br>(a) 1 <sup>st</sup> BOS Meeting of Electrical   | ASTU                                    |                      |

|     |  |  |      |
|-----|--|--|------|
|     | Engineering of ASTU on 05-06-2017  |  | 2017 |
| (b) | 2 <sup>nd</sup> BOS Meeting of Electrical Engineering of ASTU on 20-03-2018            |  | 2018 |
| (c) | BOS Meeting of ASTU for New Course Structure on 08-05-2018                             |  | 2018 |
| (d) | 3 <sup>rd</sup> BOS Meeting of 1 <sup>st</sup> Year BTech course of ASTU on 23-04-2018 |  | 2018 |
| (e) | 4 <sup>th</sup> BOS Meeting of Electrical Engineering of ASTU on 23-04-2018            |  | 2018 |
| (f) | 1 <sup>st</sup> BOS Meeting of Instrumentation Engineering of ASTU on 06-04-2018       |  | 2018 |