**Academic Profile**

Name: Dr. Kshirod Sarmah, Ph.D(CSE)

Designation: Assistant Professor, Deptt. Of Computer Science ( At Present)

Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya (PDUAM) A Govt. Model College of Science ,Amjonga, Goalpara,Assam.

E-mail Id :kshirodsarmah@gmail.com

Contact No.: 94018-00625/91019-27881(M)

**Educational Qualification:**

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| --- | --- | --- | --- | --- |
| **Degree/Certificate** | **Board/University** | **Subject/Branch** | **Year** | **Percentage of Marks** |
| Ph.D | Rajiv Gandhi University | Computer Science and Engineering | 2015 | 72.00%(Course Work) |
| Master of Science | Gauhati University | Computer Science | 2003 | 69.1% |
| Bachelor of Science | Gauhati University | Mathematics | 2001 | 60.0% |
| H.S(Sc.) | AHSEC | Math,Phy,Chem,Bio,Eng,Ass | 1997 | 59.6% |
| HSLC | SEBA | Math,Sci,Social,Eng,Adv.Math,Ass | 1995 | 71.5% |

**Research Topic: “**Design and Development of a Speaker Verification System in Multilingual Environment.”

Junior Research Fellow

* Project entitled “ *Development of a Person identification system based on Speaker Verification to control the access of resources in a typical computer laboratory environment”,* Funded by Department of Information Technology (DIT), Govt. of India, in the Department of Computer Science and Engineering, Rajiv Gandhi University, Rono Hills, Itanagar.(From 10th August 2010 to 31th August 2013)
* Duration of Research Experience: Four and half years.

**Area of Research**

Speech Signal Processing, Speaker Verification, Machine Learning.

**Teaching Experience:**

* Assistant Professor and HOD in the Department of Computer Science at PDUAM, A Govt. Model College of Science, Amjonga, Goalpara,Assam from 5thAugust 2017 to Till Date.
* Assistant Professor and HOD in the Department of Computer Science at NERIM Group of Institutions, Guwahati from 20thJanuary 2007 to 4th August 2017.
* Total Teaching Experience:**09 years**.
* Question Paper Setter and External and Internal Examiner under Gauhati University and Dibrugarh University.

**List of Publications in International /National Journals/Conferences**

1. Utpal Bhattacharjee And Kshirod Sarmah, “A Multilingual Speech Database for Speaker Recognition”, *Proc. IEEE (indexing) ISPCC*, March 2012.
2. Utpal Bhattacharjee And Kshirod Sarmah,“ A Study on the Impact of Channel Variability on Speaker Verification System”. *IEEE Conference proceeding, ICECT*, April 2012.
3. Utpal Bhattacharjee And Kshirod Sarmah, “GMM-UBM Based Speaker Verification in Multilingual Environments”,*International Journal of Computer Science Issues (IJCSI)*.Vol. 9,Issue 6,No.2, ISSN:1694-0814, November 2012, pp.373-380.[**IF=0.242, UGC Approved**]
4. Utpal Bhattacharjee And Kshirod Sarmah, “Development of a Speech Corpus for Speaker Verification Research in Multilingual Environment”,*International Journal of Soft Computing and Engineering (IJSCE)* ISSN: 2231-2307, Volume-2, Issue-6, January 2013, pp. 443-446,[**IF=4.96,ISI indexing**]
5. Utpal Bhattacharjee And Kshirod Sarmah, “Speaker Verification Using Acoustic And Prosodic Features*”, Advanced Computing: An International Journal ( ACIJ )*, Vol.4, No.1, ISSN:2229-6727,January 2013,pp.45-51.[**IF=0.876, doi**: **10.5121/acij]**
6. Utpal Bhattacharjee And Kshirod Sarmah,“Language Identification System Using MFCC and Prosodic Features”, *Proc. IEEE (indexing), (ISSP)* International Conference at Gujarat March 2013, pp. 194-197.
7. Kshirod SarmahAndUtpal Bhattacharjee, “Speaker Modeling Distance Normalization Technique in Multilingual Speaker Verification*”, International Journal of Electrical and Electronics Engineering Research (IJEEER),* ISSN (Print):2250-155X, ISSN (Online):2278-943X, Vol.3, Issue-2, June 2013, pp.319-326, [**IF=7.89**, **Indexing:Thomson Reuters]**.
8. Kshirod Sarmah And Utpal Bhattacharjee, “Study on the impact of Background Model in GMM-UBM based Speaker Verification in Multi-sensor environment.”, *International Journal of Computer Science and Engineering (IJCSE),*ISSN (Print):2278-9960,Vol. 2, Issue 4,Sept. 2013,pp. 9-16.[**IF= 5.98**, **Indexing:Thomson Reuters**].
9. Kshirod Sarmah And Utpal Bhattacharjee, “Multilingual Speaker Verification with Different Normalization Techniques”, *International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE)*, ISSN: 2277-128X, Vol.3, Issue 12, December 2013,pp. 587-594. [**IF=2.08]**.
10. Kshirod Sarmah And UtpalBhattacharjee, “GMM based Language Identification using MFCC and SDC Features”, *International Journal of Computer Applications (IJCA)*, ISSN: 0975-8887, Vol.85-No 5, January 2014, pp. 36-42. [**IF=0.82**]
11. Kshirod SarmahAnd Utpal Bhattacharjee, “Improvement of Speaker Verification System with Feature Level and Score Level Normalization Techniques”, *International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE)*, ISSN (online):2320-9798, ISSN (print):2320-9801, Vol.2, Issue 2, February 2014, pp. 3119-3126. [**IF=7.19**]
12. Kshirod Sarmah And Utpal Bhattacharjee, “Text-independent multi-sensor speaker verification system”, *International Journal of Computer Science and Engineering (IJCSE),*ISSN (Print):2278-9960,Vol. 4, Issue 5,Aug-Sept.2015,pp.7-16.[**IF= 5.98**, **Indexing:Thomson Reuters**].
13. Kshirod Sarmah And Utpal Bhattacharjee, “Enhancement of Multilingual Speaker Verification System with a New Approach”*Proc. IEEE (INDIACom-2017),* International Conference at New Delhi, March 2017.**[Indexed in Scopus].**
14. Kshirod Sarmah, “Comparison Studies of Speaker Modeling Techniques in Speaker Verification System”,*International Journal of Scientific Research in Computer Science and Engineering (IJSRCSE)*, E-ISSN: 2320-7639,Vol.5, Issue.5, October 2017,pp.75-82 [**IF=1.638**,**Indexing:Thomson Reuters, UGC Approved].**
15. Kshirod Sarmah, Swapnanil Gogoi And Utpal Bhattacharjee “ A Language Dependent Speaker Verification System Using Different Normalization Techniques”,*International Journal of Research in Electronics and Computer Engineering (IJRECE)*, ISSN: 2393-9028 (PRINT ),ISSN: 2348-2281 (ONLINE),Vol.7, Issue.1, January-March 2019,pp.486-493 .(**IF=4.305, UGC Approved**).
16. Kshirod Sarmah, “Improvement of Speaker Verification Using Deep Learning Techniques,” *Proc. Springer ( IEMIS 2020),International Conference* 23rd to 25th February 2022, Organized by Dept. of Computer Application and Science, Institute of Engineering & Management Group (IEM),Kolkatta, India.

**UGC-Sponsored Orientation Programme:**

 Successfully completed one month duration UGC sponsored Orientation Programme from 7th February to 6th March, 2018 at HRDC Gauhati University,Assam.

**Paper Presentation in International Conference:**

1. *IEEE* International Conference on Signal Processing Computing and Control (*ISPCC -2012*), March 15-17, 2012, Organized by Dept. Of Electronics and Communication Engineering, Jaypee University of Information Technology, Shimla, India.
2. 4th*IEEE* International Conference on Electronics Computer Technology (*ICECT -2012*) held in Kanyakumari, India, 6th-8th April, 2012.
3. 4th*IEEE*International Conference on “Computing for Sustainable Global Development”, (*INDIACom-2017*) 01st - 03rd March, 2017 , Organized by BharatiVidyapeeth's Institute of ComputerApplications and Management (BVICAM), New Delhi (INDIA),India.
4. 3rd International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2020), *Springer*, 23rd to 25th February,2022, Organized by Dept. of Computer Application and Science, Institute of Engineering & Management Group (IEM), India.

**Participation in National Conference:**

1. UGC sponsored National Conference on “*Multimedia Signal Processing*”, conducted by the Department of Computer Science and Engineering, Annamalai University, Tamil Nadu from 16th to 17th Feb,2011.
2. National Conference, “Computational Intelligence and Signal Processing” (*CISP 2011*, 2-3 March 2011) at Don Bosco College of Engineering and Technology, Assam.

**WORKSHOPS AND STAFF DEVELOPMENT PROGRAMMES (SDP)**

1. **DIT- “**Workshop on Speaker Verification: Development and Applications” (DIT-WSV) from 13-17 February, 2012 held at Dept. Of EEE and Dept. Of CSE, IIT Guwahati, India.
2. **Workshop** on “An Introduction to Natural Language Processing”. From July 11-15, 2011, held at Dept. Of CSE, Tezpur University. Assam.
3. **WISP 2013**: “Workshop on Image and Speech Processing”, held on 13th to 14th December, 2013 at the Indian Institute of Technology (IIT) Guwahati, India.
4. **One Week FDP** on “Testing and Quality Control of Plastic Products” Sponsored by AICTE, New Delhi Organized at CIPET, Guwahati from 10th to 21st March 2014.
5. **Coordinator of National Network Security Championship**-India grand success held association with ACM IIT Delhi at NERIM Group of Institutions, Guwahati from 22nd to 23rd April, 2014.
6. **One Week Workshop** on “Emerging Trends and Technologies in Computer Science”, 4th -10th January, 2016. Organized by Department of Computer Science, Gauhati University.
7. **Staff Development Programme** on Network Traffic Management using Soft. Computing conducted by NIT Durgapur sponsored by MHRD/AICTE Govt. Of India from 14th to 25th July,2008
8. **Staff Development Programme** on “Computer Networking with special reference to High Speed & Wireless Networking” conducted by Assam Engineering Institute sponsored by AICTE, MHRD Govt. Of India from 11th to 21st Feb,2008.
9. **Staff Development Programme** on “Computer Networks with reference to Web Technology” conducted by NERIM sponsored by AICTE, MHRD Govt. Of India from 19th to 31st January, 2009.
10. **Faculty Development Programme** on “Deep Learning” organized by E &ICT Academy IIT Guwahati, Assam from 16th to 21st December,2016.
11. Coordinator in a two-day workshop on "**Cloud Computing**" held during the period March 17–18, 2015, organized by **IFC3 India & Necromancers, IIT Bhubaneswar**, India.
12. Coordinator in a two-day workshop on "**Network Implementation & Security**," held during the period April 22–23, 2014, organized by Association for Computing Machinery **– IIT Delhi and Network Bulls**.
13. ISI-ADBU Summer School on Soft Computing Paradigm and Machine Intelligence Techniques, five-days’ workshop, organized by ISI Kolkata and ADBU, Guwahati.
14. Training Program to The Trainers programme of Finishing School under “Equity Initiative of RUSA Assam Conducted by EDUCATIVE at Gauhati Commerce College from 24th to 27th October 2017.
15. Training Course on “Information Security Management” Sponsored by DoPT, Govt. Of India, at Assam Administrative Staff College, Khanapara, Guwahati-22, from 7th to 9th January, 2019.
16. **One Week** 2nd National Workshop on Emerging Trends and Technologies in Computer Science, Organized By Dept. Of Comp.Sc.,Gauhati University,Assam. From 11th to 17th March, 2019.
17. **Two Weeks** **TEQIP-III** sponsored Faculty Development Programme on “ **Machine Learning and Python Programming”** organized by the Deptt. Of CSE, Assam Engineering College from 22nd July to 1st August 2019.
18. **One Week Faculty Development Programme on “Mathematics for Machine Learning”** organized by AICTE Training and Learning (ATAL) Academy at NIT Arunachal Pradesh from 27th to 31st July,2021.
19. **One Week Faculty Development Programme on “Applications of Machine Learning”** organized by AICTE Training and Learning (ATAL) Academy at Rajiv Gandhi University, Arunachal Pradesh from 13th to 17th September,2021.
20. **One Week Faculty Development Programme on “Advanced Applications of Machine Learning”** organized by AICTE Training and Learning (ATAL) Academy at Rajiv Gandhi University, Arunachal Pradesh from 20th to 24th September,2021.

**List of Published Books:**

1. Sarmah, K.(**2016**). Introduction to Speaker Recognition. Lambert Academic Publishing (LAP) an International Publishers with **ISBN :978-3-330-02017-7**.

**2.** Sarmah, K. And Rajbonshi, S. K. **(2019).** *College Computer Science, Fundamental of Computer Science*, vol.1 Purbaion Publication, Guwahati with **ISBN : 978-93-88593-30-4.**

**3. Sarmah, K.(2022). *College Computer Science (Computer Networks), Vol. 1***, Ashok Publication, Guwahati with **ISBN : 978-93-90942-51-0.**

**Book Chapters Publications:**

1. Book Chapter with the title, “ *Artificial Intelligence: A Blessing of Today’s the Age of Computer Science*,” in “Pragyan, A Bi-annual and Bi-lingual journal of Academic, Intellectual and Carrier Pursuit,” 2018, with ISSN:0976-4283.
2. Book Chapter title “The Role of Digital Technology in Higher Education System”, in AALORAN, Published by Purbyaon Publication, March 2018, with ISBN: 978-81-92955-43-8.
3. Three Chapters (Units 2: Data Representation, Unit 3: Computer Arithmetic and Unit 10: Memory and I/O Interfacing) in the Book “Computer Organization and Architecture”, Post Graduate Self Learning Materials, Krishna Kanta Handique State Open University (KKHSOU). April 2019, with ISBN :978-93-89123-01-2.

**Awards Obtained:**

**Research Excellence Award 2020 from Institute of Scholars for the publishing paper Title, “**Comparison Studies of Speaker Modeling Techniques in Speaker Verification System”, *International Journal of Scientific Research in Computer Science and Engineering (IJSRCSE)*, E-ISSN: 2320-7639,Vol.5, Issue.5, October 2017,pp.75-82.

**Reviewer in International Conferences:**

1st International Conference on Emerging global Trends in Engineering and Technology, *Springer*, held on 6th to 7th March 2020, Organized by School of Technology, Assam Don Bosco University, Guwahati, India.

**Membership as Co-Editor/Reviewer International Journals**

1. **Member of the Editorial Board of International Journals** *International Journal of Computer Science Engineering and Information Technology Research (IJCSEITR)*,ISSN(Print) : 2249-6831 ;ISSN(Online) : 2249-7943 ;Impact Factor(JCC) : 7.1293
2. **Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP) Membership as Reviewer of Scopus indexing UGC Approved International Journals**
3. International Journal of Engineering and Advanced Technology (IJEAT) Elsevier and Scopus Journal.
4. International Journal of Recent Technology and Engineering (IJRTE)

Elsevier and Scopus Journal.

1. International Journal of Innovative Technology and Exploring Engineering (IJITEE) Elsevier and Scopus Journal.
2. **Members of IAENG** *(International Association of Engineers).*
3. **Reviewer:** International Journal of Basic and Applied Sciences.
4. **Professional Membership** in the Institute of Scholars with Lifetime Validity.

**TECHNICAL SKILL SET:**

Languages : C, C++, Core Java.

Engineering tools : Matlab Programming.

Database : VB,Oracle , SQL, MySQL.

Web Programming: ASP.NET, JSP, PHP.

Operating Systems: Windows, UNIX, LINUX.

**SUBJECTS TEACHING**:

Computer Networks, Computer Architecture and Organization, Algorithm,Operating System, Data Structure, DBMS, Computer Graphics, Software Engineering, NLP, Theory of Computation. Web Technology, C,JAVA,C++, Matlab.

**DECLARATION**

I do here by declare that the above given information about me are true, correct and complete to the best of my knowledge and belief.

Place: Guwahati

Date:-08.03.2022 *Signature of the Candidate*

(Dr. Kshirod Sarmah)