

## **Dr. Sonia Sunny**

**Name :** Dr. Sonia Sunny

**Designation :** Associate Professor

Dept. of Computer Science

**Email id :** [sonia1.deepak@gmail.com](mailto:sonia1.deepak@gmail.com), soniasunny@prajyotiniketan.edu.in

**Area of Specialization :** Speech Processing, Artificial Neural Networks

### **Academic Qualifications : M.Sc, M.Phil, PhD, D.Litt**

- **B.Sc Triple main** (Mathematics, Physics & Computer Science), (Mangalore University, 1993)
- **M.Sc Computer Science** (Bharathidasan University, 1995)
- **M.Phil Computer Science** (Bharathiar University, 2009)
- **PhD Computer Science** (Cochin University of Science and Technology, 2014)

**Thesis Title :** A Hybrid Architecture for Recognizing Speech Signals in Malayalam

- **Honorary Doctorate Degree (Doctor of Letters, D. Litt)** (University of South America, March 2018).

### **Awards/Recognitions received**

1. Received the **Prof. M M Ghani award** (2014-2015) for the best college teacher in May 2017 from the Honourable Vice Chancellor of Calicut University Dr. K. Mohammed Basheer. This prestigious award is constituted by the University of Calicut for the college teachers in recognition of the valuable contributions to the community as a teacher and scholar of outstanding merit.
2. Received the Higher Education Leadership award titled “**Emerging Leader in Science**”, constituted by Venus International Foundation, Chennai for the contributions in the field of Science in January 2018.
3. Received the **Best paper award** in the Joint International Conference on Artificial Intelligence and Evolutionary Computations in Engineering Systems (ICAIECES-2017) & Power, Circuit and Information Technologies (ICPCIT- 2017), organized by the Department of EEE, CSE and ECE, Madanapalle Institute of Technology & Science (MITS), Madanapalle, India.

## **Research Grants**

### **Minor Research Project**

**Title-** Speech Recognition: Application in Man Machine Interface – Enabling Financial Transactions through ATMs

**Granted by:** UGC, New Delhi

**Period:** 2015 – 2017

## **Project Guide**

### **1. Title - Heart Disease Diagnosis Using Data mining Technique**

- **Amount** – Rs. 8000
- **Agency:** ASPIRE Scholarship from Govt. of Kerala
- **Purpose :** MSc Computer Science project of Mr. Linto George, student of St. Thomas Autonomous College, Thrissur for doing internship project in Prajyoti Niketan College from February to March 2019.

### **2. Title - Forgery Detection in Digital image**

- **Amount** – Rs. 8000
- **Agency:** ASPIRE Scholarship from Govt. of Kerala
- **Purpose :** MSc Computer Science project of Ms. Anu Luvis, student of St. Thomas Autonomous College, Thrissur for doing internship project in Prajyoti Niketan College from February to March 2019.

## **Experiences**

### **Administrative Experience**

- **Vice Principal**, Prajyoti Niketan College from 2014 July to 2021
- **Head, Dept. of Computer Science**, Prajyoti Niketan College from 1995 to 2021

### **Teaching Experience**

- 26 of teaching experience.  
(Joined Prajyoti Niketan college on 11-09-1995)

## **NPTEL Online Certification Course**

1. Successfully completed the NPTEL Online Certification Course on Stress Management by Indian Institute of Technology, Kharagpur. August-September 2018

## **Academic Positions**

### **University Level**

1. Member of Board of Studies in Applied Sciences of Calicut University from 1996 to 2008.
2. Member of Board of Studies (UG) in Computer Science of Calicut University from 2011 to 2015
3. Subject expert, Inspection Commission for granting affiliation to various Computer Science Courses (B.Sc, BCA and M.Sc) of Calicut University
4. Subject Expert, Board of Private College Staff Selection Committee, Calicut University.
5. Chairperson, Board of examiners, B.Sc Computer Science, BCA and B.Sc Computer Science (subsidiary) of Calicut University from 2006-2007 and 2016-2017
6. Chairperson , Board of examiners, BCA of Calicut University from 2007-2008
7. Vice Chancellor's nominee for Research Committee, Christ Autonomous College, Irinjalakkuda from 14-01-2019 onwards (Calicut University)
8. Vice Chancellor's nominee for Board of Studies in Computer Science, St. Joseph's Autonomous College, Irinjalakkuda from 14-01-2019 onwards. (Calicut University)
9. Vice Chancellor's nominee for Board of Studies in Computer Science, St. Thomas Autonomous College, Thrissur from 2019 December onwards. (Calicut University)
10. Member, Question Paper Setter Board of various universities
11. Chief Examiner for the valuation of B.Sc Computer Science main, BCA and subsidiary examinations of University of Calicut.
12. Member, Board of examiners, B.Sc Computer Science, B.Sc Computer Science ( subsidiary) both Theory & Practicals

### **Other Colleges**

1. Chairman, Board of Studies in Computer Science, St. Thomas Autonomous College, Thrissur from 2016 to 2019
2. Chairman, Board of Studies in Computer Science, Christ Autonomous College, Irinjalakkuda from 2016 to 2021
3. Member, Board of Studies in Computer Science & Physics, Vimala Autonomous College, Thrissur from 2015 to 2018

4. Member, Board of Studies in Computer Science, St. Thomas Autonomous College, Thrissur from 2013 to 2016
5. Member, Board of Studies in Computer Science, Christ Autonomous College, Irinjalakkuda from 2021 onwards
6. External Advisory Board Member for the period from 2019 to 2020, Sree Narayana Guru College Of Advanced Studies, Nattika
7. Member, Department Advisory Board (DAB), Computer Science and Engineering Department, Christ College of Engineering, Irinjalakkuda from 1 August, 2020
8. Question Paper Setter of various Autonomous colleges.

### **Membership in professional Bodies**

1. Member of Computer Science College Teachers Association (CSCTA)

### **Editorial Activity/Journal Reviewer**

1. Reviewer of PhD thesis - Bharathidasan University
2. Journal Reviewer of a Multi disciplinary peer reviewed research Journal Andromeda

### **College Level**

1. Chief Superintendent for conducting university examinations of the University of Calicut from 2016 to 2017 and from 2019 to 2020 August
2. College Council Secretary from 2018 to 2020 onwards
3. Staff advisor- liaison between the college authorities and elected students from 2015 to 2018
4. Teacher in Charge for Walk With a Scholar (a Govt. initiative programme) from 2015 onwards
5. Member of college discipline committee
6. Member of Library Committee
7. Staff coordinator of Alumni Association for 10 years
8. Member of PTA
9. Member of IQAC
10. Member of Stock Verification Committee
11. Teacher in charge of student aid fund

## **Publications**

### **a) Books**

1. Computer Applications Vol I for Higher Secondary, VHSE & State Open School, KrossPublication, May 2003.
2. Computer Applications Vol II for Higher Secondary, VHSE & State Open School, Kross Publication, May 2003.
3. Computer Applications Vol I for Higher Secondary, VHSE & State Open School, Kross Publication, May 2005.
4. Computer Applications Vol II for Higher Secondary, VHSE & State Open School, Kross Publication, May 2005.

### **b) Articles**

#### **I. International Journals**

1. Sonia Sunny, K Poulouse Jacob, "Analysis of Stock Exchange Data using Back Propagation Neural Networks", International Journal of Computer Science and Information Technology, Vol. 2, No. 2, pp. 175-179, December 2009.
2. Sonia Sunny, David Peter S, K Poulouse Jacob, A Wavelet Based Recognition System for Malayalam Vowels using Artificial Neural Networks. International Journal of Computational Linguistics Research, Vol.1, No.2, pp. 81-87, June 2010.
3. Sonia Sunny, David Peter S, K Poulouse Jacob, Wavelet Packet Decomposition and Artificial Neural Networks based Recognition of Spoken Digits. International Journal of Machine Intelligence, Vol.3, Issue 4, pp. 318-321, December 2011.
4. Sonia Sunny, David Peter S, K Poulouse Jacob, Discrete Wavelet Transforms and Artificial Neural Networks for Recognition of Isolated Spoken Words. International Journal of Computer Applications, Vol. 38, No.9, pp. 9-13, January 2012.
5. Sonia Sunny, David Peter S, K Poulouse Jacob, Optimal Daubechies Wavelets for Recognizing Isolated Spoken Words with Artificial Neural Networks Classifier. International Journal of Wisdom Based Computing, Vol. 2(1), pp. 35-41, April 2012.
6. Sonia Sunny, David Peter S, K Poulouse Jacob, Recognition of Speech Signals: An Experimental Comparison of Linear Predictive Coding and Discrete Wavelet Transforms. International Journal of Engineering Science and Technology, Vol. 4, No. 04, pp. 1594-1601, April 2012.
7. Sonia Sunny, David Peter S, K Poulouse Jacob, Development of a Speech Recognition System for Speaker Independent Isolated Malayalam Words. International Journal of

- Computer Science and Engineering Technology, Vol.3 No.4, pp. 69-75, April 2012.
8. Sonia Sunny, David Peter S, K Poulouse Jacob, Performance of Different Classifiers in Speech Recognition. International Journal of Research in Engineering and Technology. Vol.2, No.4, pp. 590-597, April 2013.
  9. Sonia Sunny, David Peter S, K Poulouse Jacob, A New Algorithm for Adaptive Smoothing of Signals in Speech Enhancement. IERI Procedia, ELSEVIER, Vol. 4, pp.337-343, 2013.
  10. Sonia Sunny, David Peter S, K Poulouse Jacob, Design of a Novel Hybrid Algorithm for Improved Speech Recognition with Support Vector Machines Classifier. International Journal of Emerging Technology and Advanced Engineering, Vol. 3, Issue 6, pp. 249-254, June 2013.
  11. Sonia Sunny, David Peter S, K Poulouse Jacob, A Comparative Study of Wavelet Based Feature Extraction Techniques in Recognizing Isolated Spoken Words. International Journal of Signal Processing Systems, Vol.1, No.1, pp. 49-53, June 2013.
  12. Sonia Sunny, David Peter S, K Poulouse Jacob, Performance Analysis of Different Wavelet Families in Recognizing Speech. International Journal of Engineering Trends and Technology, Vol.4, No.4, pp. 512-517, 2013.
  13. Sonia Sunny, David Peter S, K Poulouse Jacob, Three Sigma Limits: A Statistical Method for Improving Recognition Accuracy of Speech Signals, International Journal of Advance Research in Computer Science and Management Studies, Volume 3, Issue 1, pp. 236- 242, January 2015
  14. Sonia Sunny, Financial Transactions in ATM Machines using Speech Signals, International Journal of Engineering Research and Application, Vol. 7, Issue 1, ( Part - 4), pp.25-28, January 2017.
  15. Sonia Sunny, Sreekala M, Speech Recognition in ATMs: Application of Linear Predictive Coding and Support Vector Machines, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 5 Issue III, March 2017
  16. Sonia Sunny, Voice Enabled ATMs and Deployment of Wavelets for Recognition and Authentication of Voice Based Inputs, International Journal of Pure and Applied Mathematics (IJPAM), Volume 118 No. 17, pp. 747-757, 2018. (Scopus Indexed Journal)

## **II. Proceedings of International Conferences**

1. Sonia Sunny, David Peter S, K Poulouse Jacob, Application of Discrete Wavelet Transforms and Artificial Neural Networks in Recognizing Spoken Digits. Proceedings of the International Joint Colloquiums on Computer Electronics Electrical Mechanical and Civil, pp. 71- 73, Muvattupuzha, September 2011.
2. Sonia Sunny, David Peter S, K Poulouse Jacob, Recognition of Spoken Digits: A Comparative Study of Discrete Wavelet Transforms and Wavelet Packet Decomposition with Artificial Neural Networks Classifier. Proceedings of the International Conference on Computer Science and IT Applications, pp. 71-75, New Delhi, November 2011.
3. Sonia Sunny, David Peter S, K Poulouse Jacob, Feature Extraction Methods based on Linear Predictive Coding and Wavelet Packet Decomposition for Recognizing Spoken Words in Malayalam. Proceedings of the International Conference on Advances in Computing and Communications, pp. 27- 30, Cochin, August 2012 (IEEE Xplore)
4. Sonia Sunny, David Peter S, K Poulouse Jacob, A Comparative Study of Parametric Coding and Wavelet Coding Based Feature Extraction Techniques in Recognizing Spoken Words. Proceedings of the CUBE 2012 International Information Technology Conference and Exhibition, pp. 326-331, Pune, September 2012 (ACM)
5. Sonia Sunny, David Peter S, K Poulouse Jacob, Adaptive Smoothing and Wavelet Denoising for an Enhanced Speech Recognition System. Proceedings of the Seventeenth International Conference on Image Processing, Computer Vision and pattern Recognition (The 2013 World Congress in Computer Science, Computer Engineering and Applied Computing), pp. 795-800, USA, July 2013.
6. Sonia Sunny, David Peter S, K Poulouse Jacob, Combined Feature Extraction Techniques and Naive Bayes Classifier for Speech Recognition. Proceedings of the Third International Conference on Advances in Computing & Information Technology, ACITY 2013, pp. 155-163, Chennai, July 2013 (Computer Science & Information Technology).
7. Dr. Sonia Sunny, Voice Enabled ATMs and Deployment of Wavelets for Recognition and Authentication of Voice Based Inputs. Proceedings of the Joint International Conference on Artificial Intelligence & Evolutionary Computations in Engineering systems ICAIECES-2017 & Power, Circuit and Information Technologies ICPCIT-2017, Madanapalle Institute of Technology & Science, Madanapalle.

### **III. Proceedings of National Conferences**

1. Sonia Sunny, K Poullose Jacob, "Analysis of Stock Exchange Data using Back Propagation Neural Networks", National Conference on Computer Science and Information Technology held at Naipunnaya Institute of Management & Information Technology, November, 2009
2. Sonia Sunny, K Poullose Jacob, "Charting Chaotic Movements of Equity prices Using Neural Networks", National Conference on Soft Computing held at Marian College, Kuttikkanam, January, 2010

### **IV. Proceedings of State Level Conferences**

1. "Forecasting Stock Market Prices using Back Propagation Neural Networks" in Proc. of abstracts of XIX Swadeshi Science Congress, December, 2009
2. "Tracking and Forecasting Random Stock Market Prices Using Artificial Neural Networks", in Proc. of 22<sup>nd</sup> Kerala Science Congress, pp. 481-482, January, 2010

## **Paper Presentations**

### **a) International**

1. Application of Discrete Wavelet Transforms and Neural Networks in Speech Recognition, International conference on Mathematical Computing and Management, ICMCM 2010, Mar Athanasius College for Advanced studies, Thiruvalla, June 2010
2. A Wavelet Based Recognition System for Malayalam Vowels using Artificial Neural Networks, International conference on Informatics, Cybernetics and Computer Applications, ICICCA 2010, Bangalore, July 2010
3. Application of Discrete Wavelet Transforms and Artificial Neural Networks in Recognizing Spoken Digits, International Joint Colloquiums on Computer Electronics Electrical Mechanical and Civil, Muvattupuzha, September 2011.
4. Recognition of Spoken Digits: A Comparative Study of Discrete Wavelet Transforms and Wavelet Packet Decomposition with Artificial Neural Networks Classifier, International Conference on Computer Science and IT Applications, New Delhi, November 2011.



5. Feature Extraction Methods based on Linear Predictive Coding and Wavelet Packet Decomposition for Recognizing Spoken Words in Malayalam, International Conference on Advances in Computing and Communications, Cochin, August 2012
6. A Comparative Study of Parametric Coding and Wavelet Coding Based Feature Extraction Techniques in Recognizing Spoken Words, CUBE 2012 International Information Technology Conference and Exhibition, Pune, September 2012
7. Voice Enabled ATMs and Deployment of Wavelets for Recognition and Authentication of Voice Based Inputs. Joint International Conference on Artificial Intelligence & Evolutionary Computations in Engineering systems ICAIECES-2017 & Power, Circuit and Information Technologies ICPCIT-2017, Madanapalle Institute of Technology & Science, Madanapalle.

#### **b) National**

1. Analysis of Stock Exchange Data using Back Propagation Neural Networks, National Conference on Computer Science and Information Technology, Naipunnya Institute of Management & Information Technology, November, 2009
2. Charting Chaotic Movements of Equity prices using Neural Networks, National Conference on Soft Computing, Marian College, Kuttikkanam, January, 2010
3. Digital Transformation In Higher Education During Covid-19 Pandemic: Socio-Economic Dimensions”, Online National Level Webinar on “Role of Digitization during COVID-19” organized by Department of Computer Science, Sanatan Dharma College, Ambala Cantt., Haryana in collaboration with Department of Higher Education , Haryana on June 20, 2021

#### **c) State Level**

1. Forecasting Stock Market Prices using Back Propagation Neural Networks, XIX Swadeshi Science Congress, Kerala Agricultural University, Mannuthy, December, 2009
2. Tracking and Forecasting Random Stock Market Prices Using Artificial Neural Networks, 22<sup>nd</sup> Kerala Science Congress, Kerala Forest Research Institute, Peechi, January, 2010

## **Seminars/Conferences/Workshops Attended**

### **a) International**

1. International conference on Mathematical Computing and Management, ICMCM 2010, Mar Athanasios College for Advanced studies, Thiruvalla, June 2010
2. International conference on Informatics, Cybernetics and Computer Applications, ICICCA 2010, Bangalore, July 2010
3. International Joint Colloquiums on Computer Electronics Electrical Mechanical and Civil, Muvattupuzha, September 2011.
4. International Conference on Computer Science and IT Applications, New Delhi, November 2011.
5. International Conference on Advances in Computing and Communications, Cochin, August 2012
6. CUBE 2012 International Information Technology Conference and Exhibition, Pune, September 2012
7. International Workshop on Advanced Learning-Learning Methodology, St. Thomas Autonomous College, Thrissur, November 23, 2016
8. International Conference on Emerging Trends in Applied Mathematics and Computer Science, St. Thomas Autonomous College, Thrissur, 13-14 December 2016
9. International Conference on Artificial Intelligence & Evolutionary Computations in Engineering systems ICAIECES-2017 & Power, Circuit and Information Technologies ICPCIT-2017, Madanapalle Institute of Technology & Science, Madanapalle, April 2017.
10. Two day International Conference on Management and Allied Sciences, Prajyoti Niketan College, Pudukad on 25-10-2018 and 26-10-2018
11. Two day International seminar on Interdisciplinary developments in Cancer Research at St. Joseph's College, Irinjalakkuda on 28<sup>th</sup> & 29<sup>th</sup> January, 2020

### **(b) National**

1. Two day National Seminar on Information Technology, "Login IT-2000", Prajyoti Niketan College, Pudukad, December, 2000
2. National Seminar on Computer Graphics & Animation, "IT Samhitha-2005", Prajyoti Niketan College, Pudukad, January, 2005

3. National Seminar on Computer Animation, “IT VISTA 09”, Prajyoti Niketan College, Pudukad, January, 2009
4. National Seminar on Network security, Naipunnya College , Koratty, December 2008
5. National Seminar on Multimedia, Vimala College, Thrissur, March 2009
6. One day technical Concert on Cyber Security, St. Joseph’s College, Irinjalakuda: November 2009
7. National Conference on Computer Science and IT, Naipunnya College , Koratty, November, 2009
8. 19<sup>th</sup> Swadeshi Science Congress, Kerala Agricultural University, December, 2009
9. National Conference on Soft Computing, Marian College, Kuttikanam, January, 2010
10. National workshop on On location Sync sounding, Asoka Inn organized by JMC, Thrissur, January 2010
11. 22nd Kerala Science Congress, KFRI, Peechi, January, 2010
12. National seminar on Ethical Hacking, Regional Theatre, Thrissur, February, 2010
13. Three day workshop on Digital Image processing using MATLAB , Cochin University of Science & Technology, August 2011
14. Two day UGC sponsored National Conference on Soft Computing Technique for Data Mining , MES College, Marampally, January, 2014
15. UGC sponsored two day National Workshop on Statistical Pattern Recognition , Prajyoti Niketan College, Pudukad, January, 2014
16. National Seminar on Research Trends in Computer Science, St. Thomas College Thrissur, February, 2014
17. National Conference on Computer Science and its Applications, Prajyoti Niketan College, Pudukad, February, 2015.
18. UGC sponsored two day National seminar on Big Data Analysis, S.H College, Chalakudy, November 2015
- 19.** National Colloquium on Higher Education, Academia Administration in India Global Challenges & Local Responsibilities, St. Thomas autonomous College, Thrissur, March 7 and 8, 2017
20. Two day National Seminar on “ Machine Learning” at St. Thomas Autonomous College, Thrissur
21. Two day National Seminar on “ Big Data Analytics & Signal Processing ” at St. Thomas Autonomous College, Thrissur on 17-12-2018 and 18-12-2018

22. National Workshop on Moodle organised by the IQAC in association with Department of Computer Science on 19-01-2019 at Prajyoti Niketan College, Pudukad.
23. One day National seminar on “Recent Developments in Computational Intelligence and Applications” at Christ Autonomous college, Irinjalakkuda on 7-3-2020

**(c) State / Regional**

1. Syllabus / curriculum restructuring for B.Sc Computer Science main, subsidiary and BCA under Choice Based Credit and Semester System of the University of Calicut, March 2009
2. One day workshop on LaTeX, Federal Institute of Science And Technology, July, 2011
3. Quality Improvement Programme on Research Aptitude at Westfort Higher Education Trust , Thrissur, September 2011
4. Two day Workshop on “MATLAB for Image Processing”, Prajyoti Niketan College, Pudukad, January, 2012
5. One day workshop on Android application Development organized by Computer Socieity of Kerala, Vimala College, Thrissur, January 14, 2017
6. One day faculty Development programme in the topic Art of writing research paper conducted by Vimala college in association with CSCTA on 24th march 2018
7. One day regional workshop on “Research Methodology” organized by PG department of Psychology, Prajyoti Niketan College, Pudukad on July 4, 2019

**Others**

1. Participated in the largest speech competition “The Word” held at Devamatha CMI Public School, Thrissur on 17-12-2016 which made it to the Guinness Book of World Records

**Innovations/ Contributions in Teaching :**

1. Structured the syllabus for B.Sc Computer Science in 1995 when the course was started in Calicut University
2. Was a part of the committee in drafting the Syllabus / curriculum restructuring for B.Sc Computer Science main, subsidiary and BCA under Choice Based Credit and Semester System of the University of Calicut in 2009

3. Teaching - Special effort was taken to draft the syllabus of B.Sc Computer Science (Main). Students are introduced with different software and hardware tools , ICT enabled classes, Industrial visits, Exhibitions, talks by experts from IT industry, exhibitions, seminars, Conferences etc.

### **Faculty Development Programmes**

1. UGC sponsored Orientation Course at Mahatma Gandhi University from 2<sup>nd</sup> to 29<sup>th</sup> May, 2002
2. UGC sponsored Refresher Course on Advances in Computer Science at Cochin University of Science & Technology from 22<sup>nd</sup> February to March 15<sup>th</sup> , 1999
3. UGC sponsored Refresher Course in Computer Applications at Mahatma Gandhi University from 27<sup>th</sup> June to 16<sup>th</sup> July, 2005
4. UGC sponsored Refresher Course in Human Rights at Academic Staff College, Calicut University from 3<sup>rd</sup> to 23<sup>rd</sup> February, 2009
5. Short term training programme on “Soft Computing Techniques for Engineering Research” at Rajiv Gandhi Institute of Technology, Kottayam, Technical Education Kerala 14<sup>th</sup> Nov to 19<sup>th</sup> Nov 2011
6. Short term training programme on “Recent Trends in Audio & Speech Processing” at Rajiv Gandhi Institute of Technology, Kottayam, Technical Education Kerala 21<sup>st</sup> to 26<sup>th</sup> November, 2011
7. Two weeks Mooc course on “ Online Learning and Content Development” organized by FLAIR Kerala, Directorate of Collegiate education, Kerala from April 18 - May 02, 2020.
8. Two Weeks Faculty Development Programme on "Managing Online Classes And Co-Creating Moocs" organized by Teaching Learning Center, Ramanujan College, New Delhi and sponsored by Ministry of Human Resource Development, Govt. of India, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching , from April 20 - May 06, 2020.
9. One week Programme on “R Training” organized by Sri Krishna Arts and Science College, Coimbatore and offered by Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt., of India from April 19 – April 25, 2020.

10. Three day workshop on 'Effective and Efficient Online Teaching in the Age of Corona, A Hands On Workshop' organised by the Teaching Learning Centre (ICT) at IIT Bombay, funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), MHRD, Govt. of India on May 17.
11. One week online Faculty Development Program on “Machine Learning and Applications” under SAGE Summer School organized by Sagar Institute of Research and Technology, Bhopal and supported by ACM, ACM-W, IEEE and Computer Society of India from May 18 – May 23, 2020.
12. One day Faculty Development Programme on “Free and Open Access Resources for Teaching, Learning and Research” organized by the Department of Business Administration, Sri Adi Chunchanagiri Women’s College, Cumbum on 20 May, 2020.
13. One week Programme on “Python 3.4.3 Training” organized by Gurunanak Institute of Technology (GNIT) and offered by Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt., of India in May 2020.
14. One week Faculty Development Programme on “Insights into Quality Research and Innovation” organized by Research & Development Cell and Institution’s Innovation Council of Vivekanandha College of Engineering for Women from 13th May 2020 to 20th May 2020.
15. Three day UGC sponsored Online Short Term Course on “Human Values and Ethics” , organized by University Grants Commission Hyman Resource Development Centre, Jawaharlal Nehru Technological University, Hyderabad from 26-5-2020 to 28-5-2020
16. Five day Faculty Development Programme (FDP) on Online Education in HEI’s conducted by the Faculty Development Centre of Kerala State Higher Education Council during 13th to 17th July 2020
17. One week Faculty Development Programme on “Recent Trends and Challenges in Research” entre, Ramanujan College University of Delhi under the aegis of MINISTRY OF EDUCATION PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING in collaboration with UGC PARAMARSH Rayat Shikshan Sanstha's KARMAVEER BHURAO PATIL MAHAVIDYALAYA, PANDHARPUR(Autonomous) from 10 - 18 May, 2021
18. Online course on Nature-based Solutions for Disaster and Climate Resilience a course developed by experts from the United Nations Environment Programme (UNEP) and the Partnership for Environment and Disaster Risk Reduction (PEDRR) with support

from the European Union, in collaboration with the SDG Academy and the EdX Platform . 20 May 2021

19. One Week Online Faculty Development Programme On “Blended Learning and Pedagogical Techniques” Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of MINISTRY OF EDUCATION PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING in collaboration with ST. JUDE’S COLLEGE THOOTHOR, TAMILNADU from 07 - 16 June, 2021

### **Resource persons of Faculty Development programmes**

1. Five day Faculty Development Programme on “Managing Online Classes and Content Development” jointly organized by the Department of Computer Science and IQAC of Prajyoti Niketan College from May 25 to May 29, 2020.
2. Faculty Development Programme on “Efficient tools for Online teaching & Assessment ” jointly organized by the Department of Computer Science and IQAC of Prajyoti Niketan College for the 41 KV of the Ernakulam Region from July 15 to July 21, 2020.
3. Faculty Development Programme on “ User friendly tools for Online teaching & Assessment ” jointly organized by the Department of Computer Science and IQAC of Prajyoti Niketan College from July 10 to July 16, 2020.
4. Faculty Development Programme on “ User friendly tools for Online teaching & Assessment Phase II” jointly organized by the Department of Computer Science and IQAC of Prajyoti Niketan College from July 24 to July 30, 2020.
5. Five day Faculty Development Programme on “Training programme for Administrative Staff ” jointly organized by the Department of Computer Science and IQAC of Prajyoti Niketan College from 19-10-2020 to 23-10- 2020.

### **Invited Talks/ Lectures in Orientation Courses**

1. "Fundamentals of Computer Applications", UGC sponsored orientation course at John Mathai Center, Aranattukara, on 8<sup>th</sup> November, 2006.
3. " Role of IT in Higher Education", UGC sponsored orientation course at Academic staff college, Calicut University on 7<sup>th</sup> March 2007.
4. " Internet & Computer Virus”, UGC sponsored orientation course at Academic staff college, Calicut University on 25<sup>th</sup> October, 2007

## **Keynote address / Computer Science Association Inaugurations**

1. Keynote address on “ Information Technology based Education at different levels of Instruction” at Calicut University teacher education center, Ollur, August, 2001.
2. Computer Science Association Inauguration and talk on "Neural Networks" at St. Mary's College, Thrissur, January, 2007.
3. Keynote address in the state level seminar series “ Byteclix 2014 - Ur Future a Click Away” on the topic “ Speech Recognition : A Review” held at St. Mary’s College Thrissur, November, 2014
4. Computer Science Association Inauguration and talk on “Introduction to Speech recognition in Malayalam” at Carmel college, Mala, September 2016
5. Computer Science Association Inauguration and keynote address at Sree Kerala Varma College, Thrissur, January 20, 2017
6. Computer Science Association Inauguration and keynote address at Sri Achutha Menon Govt college, Kuttanellur, January 2017
7. Computer Science Association Inauguration and keynote address at Sree Narayana College, Nattika, January 16, 2017
8. Computer Science Association Inauguration and keynote address at Don Bosco College, Mannuthy, 2018
9. . Inaugurated the Technical fest TECH-BOOT 2K18 and delivered a talk on “Big data Analysis in Speech Recognition” at Yuvakshetra Institute of Management Studies, Palakkad on 08-09-2018
10. Chief Guest for the inauguration of EXPO-2019, the Science, Social Science and Mathematics Exhibition, Viswajyothi CMI Public School, Angamaly, August 30, 2019
11. Resource person for Computer Science Association Inauguration, St. Joseph’s College, Irinjalakkuda, July 19, 2019

## **Online Academic activities**

### **b) Webinars attended**

#### **International**

1. One day international conference (webinar) on “Pandemic Pedagogy in Higher Education of COVID-19” organized by the Department of Education, Bharathiyar University, Coimbatore, Tamil Nadu on May 13, 2020.



2. International webinar on “Cloud and Big Data” organized by Department of Computer Applications, MES College, Marampally, Aluva on 16 May, 2020.
3. Live international webinar on “Teach-nology” organized by Department of Computer Science and IQAC, Mahatma Gandhi College, Iritty, Kannur on 21 May and 22 May, 2020.
4. International webinar on “Data Science and Predictive Marketing” organized by Department of Computer Science, St. Joseph’s College (Autonomous), Irinjalakuda on May 20, 2020.
5. International Webinar on “Academic Publishing in Top Rated Journals” organised by the Post Graduate Department of Commerce, Government College Tripunithura on April 30, 2020.
6. International SAGE TALK organized by Department of Computer Science and Engineering, Sagar Institute of Research & Technology, Bhopal, June 11, 2020
7. International webinar on “ Software Testing Techniques”, organized by Department of Computer Science, Prajyoti Niketan College, on July 6, 2020
8. International webinar on “Hope, Resilience And Mindfulness Based Self-Care During Covid-19” , organized by the PG dept and IQAC of Prajyoti Niketan College, on July 11, 2020
9. International webinar on “Software Testing and Multimedia Technologies”, organized by Department of Computer Science, Prajyoti Niketan College in association with CSCTA, on September 25-26, 2020
10. International webinar on “Virtual seminar series on AI- The future work”, Effect of Organisational Culture on AI Implementation” organised by the Department of Computer Science & B.Voc Software Development, St. Joseph’s College (Autonomous), Irinjalakuda on 4th February 2021
11. International webinar on Systems Thinking and Modelling organized by the Department of Computer Science in association with IQAC , St. Thomas College (Autonomous), Thrissur on 16th and 18th June 2021

### **National**

1. National Webinar on “Artificial Intelligence and Data Science and its Global Impact” jointly organized by Department of Computer Science and Department of Information Technology, SIES College of Arts, Science and Commerce (Autonomous), Sion (West) - 400 022 on May 23, 2020.

2. Webinar of “Gender Impact of COVID-19” organized by the Department of Women’s Studies, Alagappa University, Karaikudi on May 29, 2020.
3. National webinar on “New Horizons for E-Learning in Higher Education” organized by SGPA, Science and Commerce College, Sakri on May 14 and May 15, 2020.
4. Webinar on “Cybergogy for 21<sup>st</sup> Century Classrooms” organized under the aegis of the Inter-University Centre for Teachers Education (IUCTE), Department of Education, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat on 18 May and 19 May, 2020.
5. National level webinar on “COVID-19 and Social Security Measures for Unorganised Workers in India” organized by the Social Transformation Centre, Madurai Kamaraj University, Madurai on May 28, 2020.
6. National webinar on “Academic Quality Enhancement through Outcome based Education” organized by IQAC, St. Teresa’s College (Autonomous), Ernakulam on May 9, 2020.
7. Online course on “Network Security and Management” organized by Sri Krishna Adithya College of Arts and Science, Kovaipudur, Coimbatore on May 4, 2020.
8. National Webinar on Outcome Based Education organized by Internal Quality Assurance Cell and Department of Russian & French, Faculty of Arts of The Maharaja Sayajirao University of Baroda, Vadodara on 14 June 2020.
9. 10 day International Gender Sensitization Program on “Women Empowerment for Societal Transformation” organized by the Centre for Women Empowerment and Women Studies, Manonmaniam Sundaranar University, 13<sup>th</sup> August ,2020
10. National Webinar on “ Be the best version of yourself ” organized by MES Ponnani College, Ponnani in association with Kerala State Higher Education Council (KSHEC) on 22<sup>nd</sup> August ,2020.
11. National Webinar on “National Education Policy2020 reforming & rejuvenating teaching & learning in H.E institutions for the the 21<sup>st</sup> century” organized by IQAC, Nirmala College, Muvattupuzha , 8<sup>th</sup> August 2020
12. National Webinar on “ Understanding the Mentee: The innovative mentor”organized by IQAC, Prajyoti Niketan College on 27th October, 2020.
13. National Webinar on ‘Publishing Papers: The Matrix of Research’ organized by IQAC, Prajyoti Niketan College on 17th February, 2021.
14. National webinar on “Estrogen - An Overview” organized by Research & Postgraduate Department of Psychology, Prajyoti Niketan College, on 9th March 2021

15. National Webinar on 'Entrepreneurship in the Digital Era' organized by IQAC, Prajyoti Niketan College on 12th March, 2021.
16. National Webinar on 'Gender Equity' organized by IQAC, Prajyoti Niketan College on 27th March, 2021.
17. National Level Webinar on "Role of Digitization during COVID-19" organized by Department of Computer Science, Sanatan Dharma College, Ambala Cantt., Haryana in collaboration with Department of Higher Education , Haryana on June 20, 2021

### **State level**

1. Webinar on "Classrooms to Online Platforms: Dealing with Transitions in Teaching Learning Methods" organized by IQAC, Little Flower College, Gurveyoor on May 23, 2020.
2. Webinar on "Outcome Based Education" jointly organized by St. Thomas College (Autonomous), Thrissur and Kerala State Higher Education Council on May 13, 2020.
3. Webinar on "NAAC Accreditation for Autonomous/Affiliated Colleges" organized by St. Thomas College (Autonomous), Thrissur under UGC Paramarsh Scheme on May 22, 2020.
4. Webinar on "Research Prospects in Deep Learning" conducted by the Department of Computer Science, Vimala College (Autonomous) on June 6, 2020.
5. Webinar on "Writing a Winning Project Proposal" organized by the Internal Quality Assurance Cell, Mar Athanasius College Kothamangalam on May 11, 2020.
6. Online Workshop on "Yoga and Healthcare" organized by IQAC, Prajyoti Niketan College, Pudukad on May 17, 2020.
7. Webinar on Online teaching tools organized by Dept. of Computer Science, Assumption College, June 17, 2020
8. Webinar on COVID-19 pandemic current situation: What next? Dept. of Computer Science & NSS Units 185 & 83 in association with Ministry of Information and Broadcasting, Govt. of India , Prajyoti Niketan College, Pudukad , 8<sup>th</sup> August 2020
9. Webinar on "CYBER SECURITY" conducted by Department of Computer Science in association with Ministry of Information and Broadcasting on 30/11/2020
10. Webinar on "JAVA & INDUSTRY HOW CAN STUDENTS BE ACHIEVERS???" organized by Department of Computer Science in association with IQAC and WWS, Mahatma Gandhi College-Irityy, Kannur on 22 August 2020.

11. Webinar Series, “Unheard Stories from Unseen Heroes - An Interactive Session with Frontline Workers of Covid -19”, organized by Unnat Bharat Abhiyan, Vimala College (Autonomous), Thrissur from 19th August 2020 to 24th August 2020.
12. Webinar on COVID Vaccination organized by NSS Units 185 & 83 in association with Ministry of Information and Broadcasting, Govt. of India , Prajyoti Niketan College, Pudukad , 29<sup>th</sup> April 2021
13. Workshop "Data mining Applications of Python" Organized by the Department of Computer Science with the support of DBT-Star College Scheme on 6-05-2021.
14. Webinar on “Through the Gendered Lens: Perspectives on Gender Equity” organised by the IQAC at Prajyoti Niketan College, Pudukad on 07-08-2021.

### **Online Quizzes**

1. Online quiz contest on “COVID-19 awareness” organized by IQAC, Don Bosco College Mannuthy during April 2020.
2. “COVID-19 Awareness Quiz” organized by IQAC, St. Joseph’s College, Irinjalakuda during April 2020.
3. National Level COVID-19 Awareness Quiz’ organized by department of Microbiology, Ranveer Rananjay PG College Amethi (UP).
4. Awareness Quiz on Drug Abuse organized by Unnat Bharat Abhiyan, Vimala College (Autonomous), Thrissur
5. International Quiz on Biodiversity organized by St. Albert’s College, June 24, 2020

### **Engaging online classes**

1. LMS using Edmodo
2. Google classroom

### **Events organized and Extension activities**

1. Organized a two day National Seminar on Information Technology, “Login IT-2000”, Prajyoti Niketan College, Pudukad, December, 2000
2. Organized a one day National Seminar on Computer Graphics & Animation, “IT Samhitha-2005”, Prajyoti Niketan College, Pudukad, January, 2005
3. Organized a one day National Seminar on Computer Animation, “IT VISTA 09”, Prajyoti Niketan College, Pudukad, January, 2009
4. Organized UGC sponsored two day National Workshop on ‘Statistical Pattern Recognition’ , Prajyoti Niketan College, Pudukad, January, 2014

5. Organized a National Conference on “Computer Science and its Applications”, Prajyoti Niketan College, Pudukad, February, 2015.
6. Organized computer education classes for Kudumbasree unit of Pudukad Grama Panchayat
7. Organized basic Computer education classes for Physically challenged children of various schools under Kodakara Block Resource Centres of Sarva Shiksha Abhiyan
8. Organized computer hardware exhibition at Govt. Vocational Higher Secondary School GVHSS, Pudukad.
9. Organized Quiz programmes in College
10. Organized a 3D film show for the students of neighboring schools and colleges
11. Organized National Workshop on Moodle at Prajyoti Niketan College, Pudukad, on 19-01-2019.

### **Experience/Role in conducting examinations**

1. Chief Superintendent for conducting university examinations of the University of Calicut from 2016 to 2017 and from 2019 onwards
2. Chairperson, Board of examiners, B.Sc Computer Science, BCA and B.Sc Computer Science (subsidiary) of Calicut University from 2006-2007 and 2016-2017
3. Chairperson, Board of examiners, BCA of Calicut University from 2007-2008
4. Chief Examiner for the valuation of B.Sc Computer Science main, BCA and subsidiary examinations of University of Calicut.
5. Member, Board of examiners, B.Sc Computer Science, B.Sc Computer Science (subsidiary) both Theory & Practicals from 1998 onwards

### **Countries Visited**

Malaysia