



Sri Venkateswara College of Engineering

An Autonomous Institution - Affiliated to Anna University
Sriperumbudur Tk - 602 017



5 Day Faculty Development Program

OR



Session Timing-1: 10.30 AM to 12.00 PM
from 21/9/2020 to 24/9/2020
Session Timing-2: 2.00 PM to 3.30 PM
on 25/9/2020

"Machine Learning and its Applications"

21-25 September 2020

Organized by

Department of
Electronics & Communication Engineering

What Will You Learn ?



- Artificial Intelligence
- Machine Learning Tools and Techniques
- Machine Learning for Speech Processing
- Intelligent Automation



Resource Person

CHIEF PATRON

Dr.S.GANESH VAIDYANATHAN, PRINCIPAL

CONVENOR:

Dr.S.MUTHUKUMAR

Head of the Department-BCE,

COORDINATORS

Dr.R.GAYATHRI, ASSOCIATE PROFESSOR,ECE

Mr.S.P.SIVAGNANA SUBRAMANIAN, A/VICE

Ms. RAJESWARI RAMARAJ, A/VICE

Ms.S.M.MEHZABEEN, A/VICE

Ms.A.BHARATHIPRIYA, A/VICE

For more
Info contact

Ms.S.M.MEHZABEEN, mehzaab@svce.ac.in
Ms.A.BHARATHIPRIYA, bharaathipriya@svce.ac.in



Dr. Vergin Raja Sarobin M
Assistant Professor (Senior)
IT Chennai

Machine Learning for Health care Applications
21/9/2020 (10.30AM to 12PM)

Dr.V.Amudha

Professor

Savitribha School of Engineering



Role of Artificial Intelligence and Machine Learning in
Speech Recognition: 22/9/2020 (10.30AM to 12PM)



Dr. K.Ramalakshmi

Assistant Professor, Karunya Institute of Technology
and Sciences

Insight to machine learning tools and techniques
23/9/2020 (10.30AM to 12PM)

Dr. G. Anushiya Rachel

Assistant Professor
Karunya Institute of Technology and Sciences,
Coimbatore.



A Practical Introduction to Machine Learning for Speech
Processing: 24/9/2020 (10.30AM to 12PM)



Mr. S.B. Senthil Kumar

Lead Engineer, Department of
Infotronics Technology Automotive & Farm Sectors, Mahindra
Research Valley, Mahindra Pat. Ltd.

Artificial Intelligence and Machine Learning - Path to Intelligent Automation
25/9/2020 (1.30PM to 3.30PM)

Registration Link:

<https://forms.gle/XWNLmpjEaxRu41MN9>



**SRI VENKATESWARA COLLEGE OF ENGINEERING
(SVCE)
PENNALUR, SRIPERUMBUDUR-602117**

	Department of Electronics and Communication Engineering	 INSTITUTION'S INNOVATION COUNCIL <small>(Ministry of HRD Initiative)</small>	 ISO 9001:2015 Certified by IRQS MGMT. S RvA C O
-----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------

**REPORT ON 5 DAYS ONLINE FACULTY DEVELOPMENT PROGRAMME
ON
MACHINE LEARNING AND ITS APPLICATIONS, SEPT 2020.**

Date: 21st-25th September, 2020

Time:

10.30 AM-12.00 Noon

Objectives:

The Five days Faculty Development Programme (FDP) on Machine Learning and its Applications was organized to introduce the fundamentals of Machine Learning and to explain various machine learning applications involving Image, Video, Text and Speech signals through demonstration. All the session deliveries were designed with an objective to discuss required basics and applications specific case studies using Deep Learning and advanced methodologies using python simulation.

About the programme:

Session I: 21/9/2020 [10.30AM to 12PM]

Dr.Vergin Raja Sarobin M, Assistant Professor(senior), VIT Chennai had delivered on the topic "Machine Learning for Health care Applications".

```
# implement using linear regression
from sklearn import linear_model

reg=linear_model.LinearRegression()

from sklearn.model_selection import train_test_split

x_train, x_test, y_train, y_test = train_test_split(df_x, df_y, test_size = 0.2, random_state = 5)

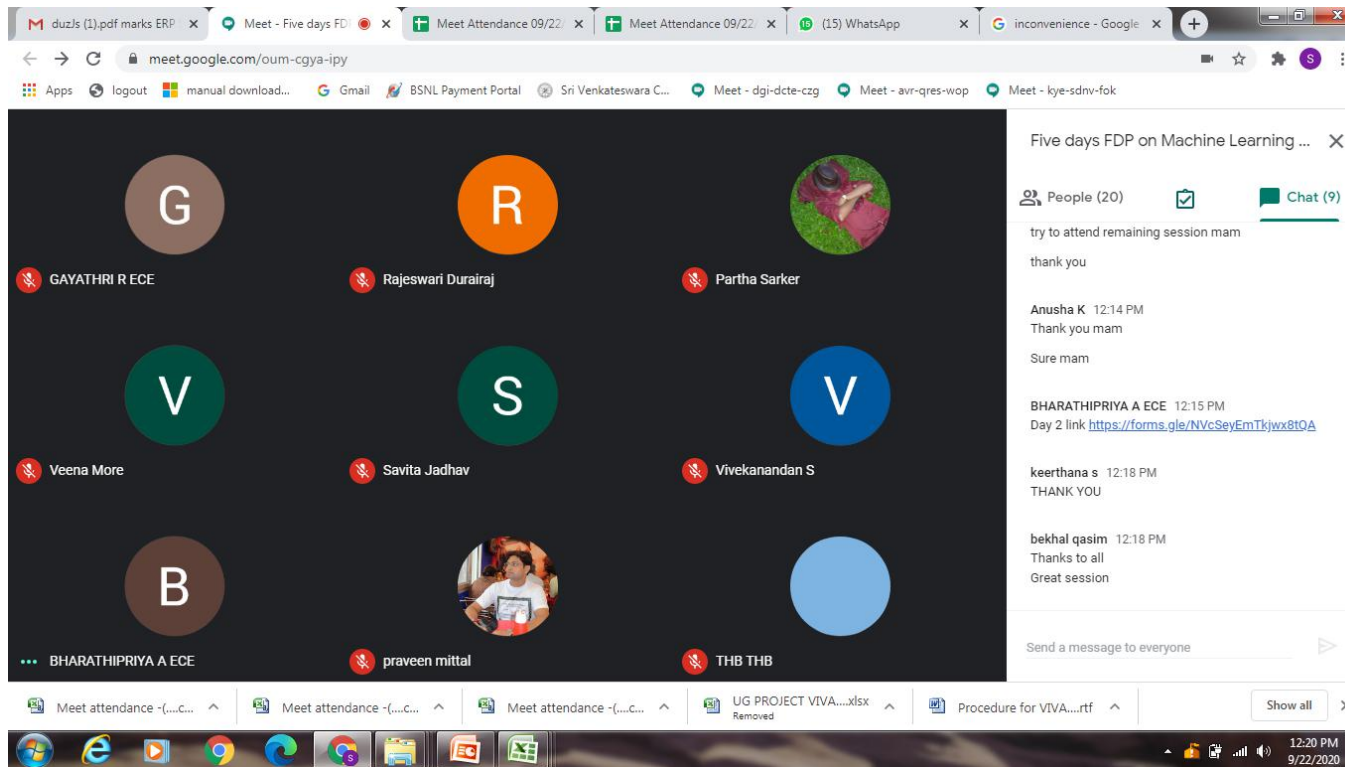
[ ] print(x_train.shape)

(353, 10)
```

The speaker had discussed about the need for machine learning, its types and various algorithms. The basics of linear and logical regression and the detailed steps for implementation were delivered during the session. Also, the implementation of the same like multivariate regression for the medical application involving diabetic datasets was clearly demonstrated line by line through python coding.

Session II: 22/9/2020 [10.30AM to 12PM]

Dr .V.Amudha, Professor, Saveetha School of Engineering, Chennai had delivered on the topic "Role of Artificial Intelligence and Machine Learning in Speech Recognition".



Relating AI and ML, the presentation was started with the basic concept of speech recognition. The tasks, digitization, Phonetics, Phonology, Lexicology and syntax, Syntax and pragmatics, Pragmatics, Interpreting prosodic features, Disambiguating homophones related with automatic speech recognition were explained in detail in line with Signal processing. Also the relevant machine learning methodologies including CNN for implementation of automatic speech recognition was also demonstrated and performances were also analysed.

Session III: 23/9/2020 [10.30AM to 12PM]

Dr. K.Ramalakshmi, Assistant Professor, Karunya Institute of Technology and Sciences (Deemed to be University), Coimbatore had delivered on the topic “Insights into Machine Learning tools and Techniques”, citing her own caption as 'God is the source of Knowledge and wisdom'. Starting with motivational speech on research activities in machine learning citing many interesting real time on going applications such as Facebook bidding algorithm, Sentiment analysis, Social media analytics, Visualization

The screenshot shows a Google Meet session in progress. The main content is a Jupyter Notebook titled 'mimodels' with the following code and output:

```
In [0]: data = pd.read_csv("D:/ai-ict/diabetes.csv")
data.head(5)

Out[0]:
```

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome
0	6	148	72	35	67	33.6	0.627	50	1
1	1	85	68	29	0	29.6	0.361	31	0
2	8	183	64	0	0	23.3	0.672	32	1
3	1	89	66	23	94	28.1	0.167	21	0
4	0	137	40	35	168	43.1	2.288	33	1

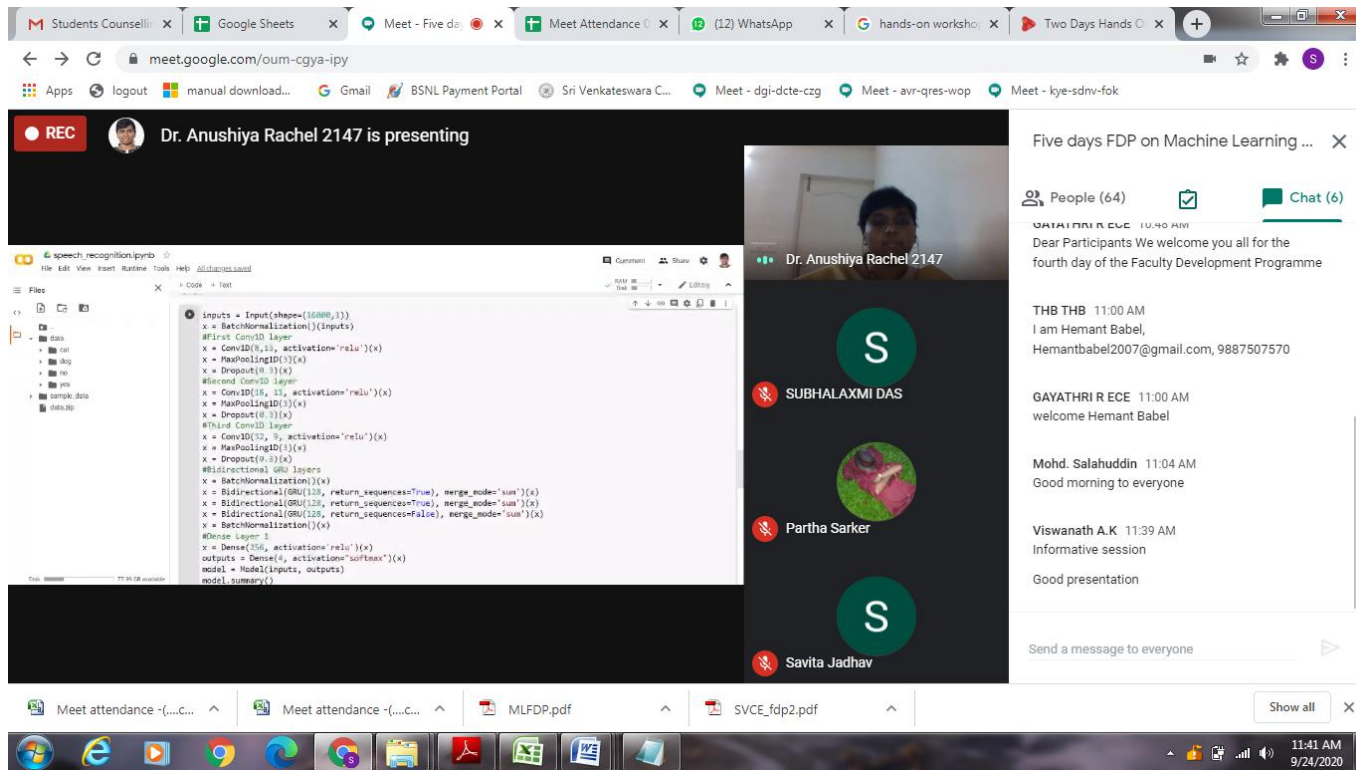
```
In [3]: plt.boxplot(data.Age)
plt.show()
```

The box plot shows the distribution of the 'Age' variable, with a median around 30, a mean around 35, and a range from approximately 21 to 50.

The meeting interface shows a presenter (Mrs. RAMALAKSHMI K. 693) and several participants, including Gayathri R ECE, Partha Sarker, Savita Jadhav, and MEHZABEEN S M ECE. The time is 11:40 AM on 9/23/2020.

tools, etc, broad types of machine learning approaches were presented. Practical demonstration in python was also given on various above applications along with major Natural language processing (NLP) implementation using various tools and techniques. The implementation stages that are considered are data acquisition/Pre-processing, transformation/visualization, Discretization, Regression, Encoding techniques along with Box plot analysis, Histogram Analysis, Exploratory data analysis and statistical analysis. The detailed explanation of LSTM in Deep learning and CNN coding and its performance were analysed. Many useful internet links for datasets, python coding hub, LSTM time series data were given to all participants.

Session IV: 24/9/2020 [10.30AM to 12PM]



Dr. Anushiya Rachel, Assistant Professor, Karunya Institute of Technology and Science, Coimbatore had delivered on the topic "A Practical Introduction to Machine Learning for Speech Processing".

The applications of ML in speech and language processing were dealt as Conventional methods, Recent trends, Development of a simple isolated word recognition system and Practical aspects of deep learning. Implementation steps (Tuning hyper parameters, Tuning performance by error analysis, handling data scarcity) in deep learning for development of automatic speech recognition were demonstrated in python platform. The speaker had also guided the researchers to refer some useful resources to get started.

Session V: 25/9/2020 [2.00PM to 3.30PM]

Mr. S.B. Senthil Kumar, Lead Engineer, Department of Infotronics Technology Automotive & Farm Sectors, Mahindra Research Valley, Mahindra Pvt. Ltd. had delivered on the topic "Insights through Machine Learning and Data Analytics".

The screenshot displays a Google Meet window with a presentation slide titled "DBSCAN Algorithm". The slide contains a diagram illustrating the algorithm's components: a central cluster of points labeled "Core", a surrounding region labeled "Border", and a separate point labeled "Noise". A dashed line indicates the "Eps" distance, and the text "MinPts = 4" is shown. Below the diagram, it states "Using Euclidean distance method, distance between two points is calculated." The meeting interface includes a "REC" button, a "SEN dhil is presenting" notification, a list of participants (SEN dhil, Veena More, Savita Jadhav, Partha Sarker, GAYATHRI R ECE, Rabiat Ohunene ABDUL..., RAJESWARI R ECE, Vinit Agham), and a Windows taskbar at the bottom.

This session was delivered totally in different aspects of machine learning approaches in real time industrial applications. Practical demonstration was also given on the ongoing researches in the field of automobile engineering.

To add essence to the report, the following points were also highlighted here. The **event was inaugurated by Dr. S.MUTHUKUMAR**, the Head of the Department of Electronics and Communication Engineering at 10.30 AM on 21st September 2020 and delivered an attractive speech to the participants about the current trends and need of machine learning. **Valedictory address was delivered by Dr. R.GAYATHRI**, Associate Professor, Department of Electronics and Communication Engineering at 4.30 PM on 25th September 2020.

Benefits:

The FDP was targeted for the faculty members, industrial and research participants from colleges and industries at international level. As per the registration, **90 participants (Internal – 16 and external 74)** were benefited in all aspects as detailed session wise above. The list of participants also includes **at international level from Haramaya University (Ethiopia), Baze university Abuja (Nigeria), PAUWES-University of Tlemcen (Algeria), University of Buraimi (Oman)**. This event helped the participants in different level

of faculty members, researchers and even participants about to start research. Those participants were able to gain knowledge on existing/modern ML techniques, data set sources and practical implementation aspects of using modern tools in machine learning for various applications.

Report drafted by Faculty Name, Designation & Dept.

Dr .R.GAYATHRI, ASSOCIATE PROFESSOR, ECE

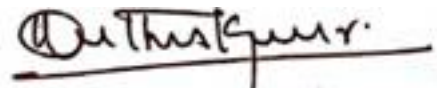
Mr .S.P.SIVAGNANA SUBRAMANIAN, AP/ECE

Ms. RAJESWARI RAMARAJ, AP/ECE

Ms. S.M.MEHZABEEN, AP/ECE

Ms. A.BHARATHIPRIYA, AP/ECE


R. Gayathri



Head of the Department
Electronics and Communication Engineering
Sri Venkateswara College of Engineering
Sriperumbudur - 602 117. India

Timestamp	Email Address	Score
9/5/2020 12:17:33	dhanasekar.j@sece.ac.in	1 / 1
9/5/2020 12:17:54	kousi@svce.ac.in	1 / 1
9/5/2020 12:17:57	rgopalkarur@gmail.com	1 / 1
9/5/2020 12:18:02	menaka@svce.ac.in	1 / 1
9/5/2020 12:18:14	karthi.lnpg@gmail.com	1 / 1
9/5/2020 12:18:15	kumarathan@svce.ac.in	1 / 1
9/5/2020 12:18:17	e8ic004@sairamtap.edu.in	1 / 1
9/5/2020 12:18:43	mail2ramkumar1@gmail.com	1 / 1
9/5/2020 12:18:52	bharathipriya@svce.ac.in	1 / 1
9/5/2020 12:19:05	cgomathi@svce.ac.in	1 / 1
9/5/2020 12:19:06	rathi.priyanka5@gmail.com	1 / 1
9/5/2020 12:19:31	sujithasubramani96@gmail.com	1 / 1
9/5/2020 12:19:32	gbsandhiyaece81@gmail.com	1 / 1
9/5/2020 12:19:40	ssgomathi@gmail.com	1 / 1
9/5/2020 12:19:47	keerthanaece20@gmail.com	1 / 1
9/5/2020 12:19:50	anju@svce.ac.in	1 / 1
9/5/2020 12:20:01	mohan-ece@saranathan.ac.in	1 / 1
9/5/2020 12:20:19	ashaece@yahoo.co.in	1 / 1
9/5/2020 12:20:27	mullaisuresh2001@gmail.com	1 / 1
9/5/2020 12:20:54	arvenmathi@gmail.com	1 / 1
9/5/2020 12:21:02	ssvlakshmi@yahoo.co.in	1 / 1
9/5/2020 12:21:06	kalaish123@gmail.com	1 / 1
9/5/2020 12:23:06	venkatsyraman@gmail.com	1 / 1
9/5/2020 12:23:15	arulp@svce.ac.in	1 / 1
9/5/2020 12:23:32	srivi@svce.ac.in	1 / 1
9/5/2020 12:24:18	gbsandhiyaece81@gmail.com	1 / 1
9/5/2020 12:24:24	pdayanidhi@yahoo.com	1 / 1
9/5/2020 12:24:45	rajeshwarigajendran96@gmail.com	1 / 1
9/5/2020 12:25:21	jprabha@svce.ac.in	1 / 1
9/5/2020 12:26:02	keerthusankar75@gmail.com	1 / 1
9/5/2020 12:28:06	kaviyarasum7@gmail.com	1 / 1
9/5/2020 12:28:38	kaviyarasum7@gmail.com	1 / 1
9/5/2020 12:30:31	sivakamistar@yahoo.co.in	1 / 1

Full Name(as you want in)	Designation	Organisation/Industry Name
Dhanasekar.J	Assistant Professor	Sri Eshwar College of Engineering
R. KOUSALYA	Assistant Professor	SVCE
Dr. Gopal Rathinam	Assistant Professor	University of Buraimi
D.Menaka	Assistant Professor	Sri Venkateswara college of Engineering
KARTHIKEYAN A	HOD	Jayam Polytechnic college
Dr.N.Kumaratharan	Professor	SVCE
KAVIMULLAI S	Student	Sri SaiRam Engineering College
V.RAMKUMAR	Assistant Professor	R.M.K.Engineering college
A. BHARATHIPRIYA	Assistant Professor	SVCE
C GOMATHEESWARI PR	Assistant Professor	Sri Venkateswara College of Engineering
D S Priyanka	Assistant Professor	V S B Engineering College, Karur
S SUJITHA	ASSISTANT PROFESSOR	VSB ENGINEERING COLLEGE
G B SANDHIYA	STUDENT	OXFORD ENGINEERING COLLEGE
Dr.S.Sankara Gomathi	Professor- Training	Zybeak Technology
S . KEERTHANA	ASSISTANT PROFESSOR	V.S.B ENGINEERING COLLEGE
Ms.L.Anju	Assistant Professor	SVCE
V Mohan	Associate professor	Saranathan College of Engineering
A. ASHA	Associate Professor	Rajalakshmi Engineeering College
Kavimullai S	Student	Sri SaiRam Engineering College
Dr.VENMATHI A R	Associate Professor	Kings Engineering College
Dr.S.VARALAKSHMI	Associate professor	Adhi college of Engineering and technology
K.Kalaichelvi	Ap	VSB engineering college
Venkatraman S	PG Student	Sri Venkateswara College of Engineering
P. ARUL	Assistant Professor	SVCE
K.SRIVIDHYA	Assistant Professor	Sri Venkateswara College of Engineering
G B SANDHIYA	STUDENT	OXFORD ENGINEERING COLLEGE
PAUL DAYANIDHI	Professor in MGM CET	MGM CET-Mahatham Gandhi College of Engineering ;
Rajewari G	PG student	SVCE COLLEGE OF ENGINEERING
Mrs.T J Jeyaprabha	Assistant Professor	Sri Venkaeswara College of Engineering
Keerthana S	PG student	Sri Venkateswara College of Engineering
KAVIYARASU M	Assistant Professor	VSB Engineering College,karur
KAVIYARASU M	Assistant Professor	VSB Engineering College,karur
Dr.T.SIVAKAMI	Former Faculty	SA Engineering college


R. Jayalalitha


Head of the Department
Electronics and Communication Engineering
Sri Venkateswara College of Engineering
Sriperumbudur - 602 117. India

and Technology Kamothe

Dr. A. SHAMILA EBENEZER, Ph.D.,

406- E block, Deccan All Seasons Apartments, Church road, Coimbatore, Tamil Nadu, India

Personal: +91 9843855002
shamilaebenezer@gmail.com

Home: 0422 437 4887
Linkedln: [shamila-ebenezer-phd-960b0916](https://www.linkedin.com/in/shamila-ebenezer-phd-960b0916)

Professional Profile

- Assistant Professor with 16 years of experience in teaching undergraduate and postgraduate courses in Computer Science and Engineering.
- Worked in data analytics project at Synechron, Pune as an intern during the period May –June 2019
- In-charge of IBM Big Data Software Center of Excellence in Karunya Institute of Technology and Sciences.
- Offered Oracle Certification training to more than 100 students as an Oracle Instructor with 100% result.
- Offered Hands-on training on “IBM Big Insights for Data Analytics & Pure Data Analytics using IBM Netezza”.
- Offered placement training for final year students on the topic Database Management systems and Operating Systems.
- Guided more than 20 projects in the area of data analytics, machine learning, Image processing, IoT & Cloud and Grid Computing.
- Organized 24-hrs Hackathons in association with IBM thrice in Karunya Institute of Technology and Sciences.
- Organized Workshops, Webinars, Faculty Development Programs and Industrial Visits in association with companies like Oracle India Pvt Ltd and IBM India Pvt Ltd.

Areas of Expertise

- Artificial Intelligence
- Machine Learning
- Data Science and Big Data Analytics
- Grid Computing
- Oracle Database – SQL Programming
- IBM Big Insights and Netezza Data Warehouse
- R Programming
- Python Programming
- Power BI

Professional Qualification and achievements

- ♦ Phd in Computer Science and Engineering, June 2018.
- ♦ Master of Engineering in Computer Science and Engineering, May 2004.
- ♦ Bachelor of Engineering in Electronics and Instrumentation, May 2002.
- ♦ Artificial Intelligence Engineer Master’s program from Simplilearn.
- ♦ Certified EMC2 Academic Associate- Data Science and Big Data Analytics
- ♦ Certification in Data Science using Python from SimpliLearn.
- ♦ Certification in Advanced Machine Learning training from SimpliLearn.
- ♦ Certification in Deep Learning with Tensor flow from SimpliLearn.
- ♦ ORALE Certified Associate-10G
- ♦ Hadoop Fundamentals Certificate from IBM Big Data University
- ♦ Map Reduce Programming Certificate from IBM Big Data University

Experience summary

- Assistant Professor, Department of Computer Science and Engineering, Karunya Institute of Technology and Sciences, February 2004 – Till date.
- Handled more than 10 subjects for Undergraduate and Postgraduate students.
- Member of Curriculum Development cell and Board of Studies in the Department of CSE and other colleges.
- Career guidance cell coordinator of the department
- Class Advisor, mentoring students in order to motivate them and guide them in their career path.
- Actively participate in continued learning through conferences, online courses and professional research.
- Involved in Placement training and Campus connect trainings.
- Actively work to connect with students using innovative teaching methodologies in order to transform lives.

Recent Projects

- Emergency Vehicle detection in traffic
- Data analytics for optimal water usage in agricultural lands of southern parts of India
- Predictive analysis of crypto currencies for developing an interactive crypto currency Chabot using IBM Watson assistant
- Handwritten digit recognition in the exam paper for estimation of course outcome attainment.
- Parkinson’s Disease Prediction using Voice data
- Loan Approval based on Defaulter data analytics
- Recommended system for online super market.
- Prediction of forest fire.
- Mosquito species identification using data analytics

Journal Publications

- A. Shamila Ebenezer, Jebapriya, S., Raja Bose, B.J., Predictive analysis of cryptocurrencies for developing an interactive cryptocurrency chatbot using IBM Watson assistant International Journal of Innovative Technology and Exploring Engineering, 8 (10), 2019, pp. 436-447.
- Swaminathan DK, Kirubakaran E, Rajsingh EB, A. Shamila Ebenezer. MIFCM: MICE imputed fuzzy C means clustering approach for effective skyline query processing on partially complete data. J Ambient Intell Humanized Comput 2019.
- Priya, S.J., Sundar, G.N., Narmadha, D. and A. Shamila Ebenezer, Identification of Weeds using Hsv Color Spaces and Labelling with Machine Learning Algorithms, International Journal of Recent Technology and Engineering, Volume-8, Issue-1, May 2019
- A. Shamila Ebenezer., Elijah Blessing Rajsingh, and Baskaran Kaliaperumal, A novel proactive Health Aware Fault Tolerant (HAFT) scheduler for computational grid based on resource failure data analytics. International Journal of Computers and Applications, pp. 1-11. 2018.
- A. Shamila Ebenezer, K. Baskaran, "Stability Assessment Metamorphic Approach (SAMA) for Effective Scheduling based on Fault Tolerance in Computational Grid", International Journal of Engineering, TRANSACTIONS B: Applications Vol. 27, No. 5, (May 2014) 699-708.
- A. Shamila Ebenezer, K. Baskaran (Sept 2012) "Fault Tolerant most Fitting Resource Scheduling Algorithm (FMFRS) for Computational Grid", European Journal of Scientific Research ISSN 1450- 216X Vol. 86 No 4th September 2012, pp. 468- 473.
- Deepa Kanmani, S., Shamila Ebenezer, A., Leela, S., Mahima, S., "Data analytics for optimal water usage in agricultural lands of Southern parts of India" International Journal of Civil Engineering and Technology, Volume 9, Issue 10, October 2018, PP: 668-680
- D.A sir, A. Shamila Ebenezer , "Adaptive load balancing techniques in global scale grid environment", International Journal of Computer Engineering and Technology, ISSN 0976-6367, Volume 1, Number 2, Sept-Oct 2010, pp370-381.
- S. Uma Maheswari, A. Shamila Ebenezer, "Fault-Tolerant Scheduling Techniques for Computational Grid", CiiT International Journal of Networking and Communication Engineering, ISSN 0974 – 9713, Feb 2011.
- D.A sir, A. Shamila Ebenezer, "A Novel Trust Based Job Replication for A Global Scale Grid Environment", CiiT International Journal of Networking and Communication Engineering, ISSN 0974 – 9713, Feb 2011.
- Nini Elsa, A. Shamila Ebenezer, "Information Aggregation Technique in Different Networks" International Journal of Computer Applications, Vol. 62, No. 8, pp. 37-41, Jan 2013.
- Nini Elsa, A. Shamila Ebenezer, "An Effectual Failure Factor Augmented Aggregation Techniques for Computational Grid", International Journal of Computer Trends and Technology, Vol. 4, Issue 4, pp. 269-274, 2013.
- Regnard Viven, A. Shamila Ebenezer, "Distributed Metadata Filter Array Based Resource Discovery in Distributed Computational Grids", International Journal of Computer Science and Management Research Vol. 2 Issue 4, pp. 2149-2152, April 2013.

Publications in Conference Proceedings

- Deepa Kanmani, S., Kirubakaran, E., Blessing Vinoth, A. Shamila Ebenezer, "An Effective Imputation Technique for Improving the Performance of Skyline Queries for Incomplete Database", *2019 International Conference on Data Science and Communication, IconDSC 2019*.
- A. Shamila Ebenezer, S. JebaPriya, D. Narmadha, G. Naveen Sundar, A Novel Scoring System for Coronary Artery Disease Risk Assessment, in proceedings of IEEE sponsored International conference on Intelligent computing and control, June 2017, ISBN 978-1-5386-0373-4 pp: 322- 327.
- A. Shamila Ebenezer, Dr. K. Baskaran, "Job replication techniques to improve fault tolerance in computational Grid", in proceedings of International Conferences on Advances in Parallel and Distributed computing, Nov 2010.
- Radhakshmi, P., A. Shamila Ebenezer, "Face Recognition based on Locality preserving projections from virtual frontal view", in Proceedings of National Conference on computing technologies (MEPCONCT'08), March 2008.
- Basil baby, A. Shamila Ebenezer, "An orthonormal wavelet based GPCA model for Lossy Image Representation", in Proceedings of International Conferences on Advances in computing (ICAC20008), Feb 2008.

Workshops Attended

- Five days ATAL workshop on "Artificial Intelligence Concepts and Applications" held during 4th Dec 2019 to 8th Dec 2019 at IIITDM, Kancheepuram.
- ICTACT Faculty Development Program on "Data Science and Big Data Analytics" held during 18/07/16 to 22/07/16 at Karunya University, Coimbatore.
- Five days Faculty Enablement Program "Big Data and Analytics" held during 10th -14th August 2015, at Infosys ltd, Bangalore.
- Five days Faculty development Program, on IBM Big Data Software organized by IBM Software Center of Excellence, from 17th June 2015, at Karunya University, Coimbatore.
- National Workshop on "Evolutionary Optimization Techniques for solving Multidisciplinary problems, held during 6th and 7th December 2013 at Karunya University, Coimbatore.
- One day FDP on "Data Analysis Using SPSS", Organized by Karunya School of Business, Leadership and Management in association with SPSS South Asia Pvt. on 30th October 2013 at Karunya University, Coimbatore.
- Research Intensive FDP on "Mathematical Modeling and Applications to Computing Sciences", held during 23-24 August 2013 at Sri Krishna College of Engineering and Technology, Coimbatore.
- Two days Workshop on "Research methods", sponsored by IEEE Computer society, held during 19-20 Feb 2011 at Anna University, Chennai.
- Faculty Enablement Program in "Business Intelligence and its Applications" conducted by Infosys Campus Connect, during 12-16 July 2010 at Infosys Technologies Limited, Mysore DC.
- Two Days Workshop on "Question Bank" conducted on 19 & 20 June 2009 at the Karunya University Campus, Coimbatore.
- National workshop on "Global Tool Kit & Research Directions in Computational Grids", during 17- 19 September 2009, at SSN College of Engineering, Chennai.
- One day National level Workshop on "Lab View Based Real Time Image Processing Applications" on 17th Oct 2008 at RVS College of Engineering and Technology, Coimbatore.
- One day Workshop on "Advanced Developer Technologies" organized by Microsoft Corporation on 25th June 2009 at Karunya University, Coimbatore

G. Hemalatha PhD



Lecturer of Information Technology

College of Applied Sciences
Ibri, Sultanate of Oman
Oman Mobile: +968 92032975
India Mobile: +91 7708865311

Email : hemalatha2107@gmail.com

CAREER OBJECTIVE

Contribute my education, skill set and experiences to the education arena in terms of leadership, teaching, learning and research using qualitative and quantitative approaches.

PRIMARY FIELDS OF INTERESTS

Query Optimization, Database Tuning, Data Mining

EDUCATION AND QUALIFICATIONS

2008 - 2014

PhD in Information and Communication Engineering

Anna University, Chennai

Thesis: Performance Improvement of Join Algorithms for Efficient Query Optimization with Early and Maximized Result Rate

There are a large number of join queries that are been executed by the interactive users and applications. In all the interactive applications the time to produce the first few results are very crucial. The state-of-art join algorithms are not ideal for this setting as most of the algorithms are hash/sort based algorithms, which require some pre-work before it can produce the join results. Four new join algorithms are proposed in this thesis, which can produce join results at higher rates during the early stages of the join operation. These proposed join algorithms are implemented without hashing and sorting techniques.

2003 – 2005

Master of Engineering in Computer Science

Karunya Institute of Technology

Karunya Nagar,
Coimbatore, India

Project: Mining and Hiding Association Rule

1999 - 2003

Bachelor of Engineering in Computer Science

Park College of Engineering & Technology
Coimbatore, India

Project: Patient Health Care Monitoring System

ADD-ON CERTIFICATION

Oracle 10g OCP	Oracle 10g New Features
Oracle 9i OCP	Oracle 9i DBA Fundamental II + Oracle 9i Performance Tuning
Oracle 9i OCA	Oracle 9i SOL + Oracle 9i DBA Fundamental I

ACADEMIC EXPERIENCE

Sep 2013 – Till Date	Lecturer College of Applied Sciences, Ibri Sultanate of Oman	7 Years and 4 Months
Dec 2011 – Aug 2013	Lecturer Al Musanna College of Technology Sultanate of Oman	1 year and 8 Months
Aug 2005 - Nov 2011	Assistant Professor Karunya University, Coimbatore, India	6 Years and 3 Months
July 2003 – Oct 2003	Lecturer Karunya University, Coimbatore, India	4 Months

PAPER PUBLISHED IN INTERNATIONAL JOURNALS

2020	“CNN Deep-Learning technique to detect COVID-19 using chest X-ray “published in Journal of Mechanics of Continua and Mathematical Sciences, Vol.-15, No.-9, September (2020) pp 368-379.
2015	‘New Bucket Join Algorithm for Faster Join Query Results’ published in The International Arab Journal of Information Technology, Vol. 12, No. 6A, 2015 Impact Factor: 0.39
2014	‘Maximized Result Rate Join Algorithm Using Histogram’, published in Journal of Theoretical and Applied Information Technology, vol. 60, no. 1, pp. 1-8.
2012	‘Ant Colony Join Technique’ published in European Journal of Scientific Research, Vol. 74 No. 1 pp. 106-112.
2012	‘A New Trace Backing Algorithm and Circular List Join for Maximizing Streaming Data Join’ published in International Journal of Data Mining & Knowledge Management Process (IJDKP) Vol.2, No.2, pp 55-63.
2011	‘A New Trace Backing Algorithm for Maximizing Streaming Data Join’ published in Communications in Computer and Information Science @ Springer – Verlag Berlin Heidelberg 2011.
2011	‘Survey on Identifying the Attributes That Improve the Object Visibility’, published in CiiT International Journal of Data Mining Knowledge & Engg.
2010	A Comprehensive Study of Non Blocking Join Techniques”, published in International Journal of Computer Science and Technology (IJCET), Vol 1, No 2, pp.342-353.
2010	“Survey on Transaction Reordering”, published in International Journal of Computer and Technology (IJCET), Vol 1, No 3, pp.383-390.

PAPER PUBLISHED IN INTERNATIONAL CONFERENCE

- 2020** “CNN Deep-Learning technique for COVID-19 detection “accepted to be published in Journal of Green Engineering in July Edition.
- 2014** ‘New Bucket Join Algorithm for Fast Query Results’, Proceeding of Elsevier’s 5th international conference on advances in communication, network and computing.
- 2010** ‘A survey on Join Techniques’ presented in Annual International Conference on ADPC 2010, Singapore.
- 2010** ‘Optimization of Join Using Random Record Generation Method’ presented in ACM-W Conference on Women in Computing and published in ACM Digital Library, Article No: 28.
- 2009** “Central Anti-Money Laundering control system using agent technology”, in International Conference on Intelligent Agent & Multi-Agent Systems, 2009, on page 1-3, published in IEEE Xplorer Digital Library.
- 2010** ‘Matrix Join Method for Joining Relations’, In Proceedings of International Conference on Emerging Trends in Engineering Technologies, pp. 184-188.
- 2010** ‘Clustering based on Compactness Measure’, In Proceedings of International Conference on Emerging Trends in Engineering Technologies, pp. 149-154.

PAPER PUBLISHED IN NATIONAL CONFERENCE

- 2010** Optimization of Join Using Hash function, In Proceedings of National Conference on Soft Computing (NCSC 2010), pp.234.
- 2009** Presented a paper in NCNICS’09 titled ‘Active Collaboration and Negotiation Framework for Online Auctions’.
- 2009** Presented a paper in NCNICS’09 titled ‘A New Approach for Hiding Sensitive Associative Rules’.
- 2008** Efficient Approximate Query Processing in Peer-to-peer Networks’, Proceedings of NCRACKT’08, Karunya University, pp.119-123.
- 2005** Presented a paper on “Data Mining Algorithms for Shared association rule sharing” at Bharath Institute of Higher Education and Research.

WORKSHOP ORGANIZED

- 2011** Organized a National workshop on “Business Intelligence & Data Warehousing – An Industrial Perspective” on March 3rd and 4th 2011, supported and sponsored by Infosys Technologies & Oracle India Pvt Ltd.
- 2011** Organized a Workshop on Project Management on July 15th and 16th delivered by experts from Infosys Technologies.

WORKSHOP ATTENDED

- 2020** 01- 02 May 2020 - 2 Days online workshop on ML and AI Using Covid 19 Virus Data Analysis in Association with NSS IIT Roorkee.
- 2020** Completed Neural network and Deep Learning course on 15th March 2020 at Coursera.
- 2020** 08-17th May 2020 (06 PM - 09 PM) -10 Days online workshop on Artificial Intelligence and ML using Python.
- 2015** Attended “LPI Linux Essentials” training for 5 days from 13th – 17th Sep at College of Applied Sciences, Oman.
- 2013** Attended FDP on “Mathematical modeling and Applications to Computing Sciences” at Sri Krishna College of Engineering and Technology during 23rd -24th August.
- 2011** Attended FDP on “Data Mining and Data Warehousing” at Anna University, Chennai sponsored by Center for Faculty Development from 23rd – 31st May.
- 2010** Awarded “Mission10X Learning Approach Practitioners Certificate” , it is in recognition of the efforts in planning, preparing and implementing MxLA in the classroom and for attending the supporting advanced workshop held on 18th & 19th Oct.
- 2010** Successfully Completed a Workshop on “High Impact Teaching Skills” attested by Dale Carnegie & Associates, Inc. Trainer and Wipro on the 24th & 25th May.
- 2010** Participated in a Mission10X workshop conducted by Wipro at Karunya University at Coimbatore from 24th – 28rd May.
- 2010** Attended Oracle Database 10g: Administration Workshop II Ed 3 at Bangalore from 9th - 14th July.
- 2009** Attended a one day work shop on “Research issues on Web Intelligence and Services” on Jan 24nd at Karunya University.
- 2008** Attended a Training on Oracle University Course,”Introduction to Oracle9i: SQL and Oracle9i Database Administration Fundamentals|R2” at Oracle University, Delhi from 29th Aug – 4th Sept.
- 2008** Participated in the Train the Trainer Program held at Infosys Technologies, Mysore from 11th Aug – 13th Aug.
- 2008** Attended a workshop organized by Microsoft & CIET on “Microsoft .NET” on 15th – 17th Dec.
- 2007** Attended a two day Workshop on “Research Project Proposal Writing” at Karunya University on 16th and 17th November.
- 2006** Attended a Faculty Enablement Program on “Foundational Computer Science Courses – An Industry Perspective” held at Infosys Technologies Ltd., Mysore from 1st - 13th May.
- 2004** Attended a Faculty Development Program on “Conquering Inhibitions and Creativity in Teaching” at Karunya University on June 14th - 15th.

GUEST LECTURES

- 2018** Delivered a Session on “Hadoop in BigData” in staff development program at College of Technology, Ibri on 12th Jun
- 2010** Delivered a Session on “Query Optimization and Tuning”, in AICTE Sponsored Staff Development Programme on “Recent trends in Data Storage and Disaster Recovery”, at Dr. Mahalingam College of Engineering and Technology on 16th May.
- 2012** Delivered a session on “Activity Learning” at Al Musanna College of Technology on 17th Jan.

COMMUNITY SERVICES

- 2014** “Oracle Database 11g - Performance Tuning and Resource Management”, Delivered during 21.04.2014 to 23.04.2014 from 4:00—6:00p.m.
Attendees: Employees from the public and private sectors
- 2015** “MongoDB” – NOSQL Database, Delivered a two day sessions from 19th Jan 2015 to 20th Jan 2015. Attendees: Employees from public and private sectors.

POSITIONS HELD

- 2018** Sysco for Distributed Database
- 2018** Member of Quality Control
- 2010-2011** Trainer for Wipro placed students in Jump Start II level
- 2008-2011** Oracle Certification Program Instructor and Co-ordinator
- 2006-2011** Core-Team Member and Co-ordinator of Infosys Campus Connect Program
- 2008-2011** Data Mining Research Group Coordinator
- 2009-2011** Member of Curriculum Development Cell

AWARDS WON

‘Employee of the Month Award’ (March 2013) awarded by Al Musanna College of Technology, Oman.

SUBJECTS TAUGHT

- DBMS
- Advanced Database Technologies
- Data Mining
- Advanced Data Mining
- Database Development
- Distributed Database
- Software Agents
- Data Warehousing
- Real-Time Systems
- Hadoop
- High-Performance Network
- Design and Analysis of Algorithms
- Software Project Management
- Main Frame Systems
- Artificial Intelligence
- Multimedia systems
- Computer Networks
- Discrete Mathematics

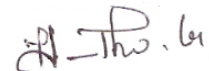
PROJECT GUIDED

- A two layered approach to generate a qualified plan for a multi-join continuous query
- Anti-Money Laundering Software
- Automated Index Selection Tool
- Matrix Join Method for Joining Relations
- Mining And Hiding Sensitive Data
- Intelligent Query Rewriter

Declaration

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

Yours Truly,



(HEMALATHA. G)