



**SRI VENKATESWARA COLLEGE OF ENGINEERING**  
Pennalur, Sriperumbudur Taluk - 602117

**DEPARTMENT OF COMPUTER SCIENCE AND  
ENGINEERING**

**Solicit your esteemed presence for the**

**INAGURATION OF**

**Five Days Short Term Training Program  
On  
“Machine Learning and Data Science”  
(12-06-2021 to 16-06-2021)**

<b>Venue</b>	<b>: Online</b> <b>(<a href="https://meet.google.com/lookup/hkpo3xlfpp">https://meet.google.com/lookup/hkpo3xlfpp</a>)</b>
<b>Date</b>	<b>: 12-06-2021 to 16-06-2021</b>
<b>Time</b>	<b>: 3:30 P.M – 4.30 P.M</b>

**Coordinators**

**Mrs.T.Padmavath, AP/CSE**  
**Mrs.M.S.Girija, AP/CSE**  
**Dr.K.Silpaja Chandrasekar, AP/CSE**  
**Mrs.V.Radha, AP/CSE**  
**Mrs.D.Vinodha, AP/CSE**

Prepared by,  
T. Padmavathy,  
AP/CSE

Approved by,  
Dr. R. Anitha,  
HOD - CSE



- 1. Report on the Machine Learning and Data Science workshop**
- 2. Attendance Report**
- 3. Feedback from the Speakers**
- 4. Feedback from the Students**
- 5. Profile of the speakers**
- 6. Invitation & Agenda**



**SVCE** | Sri Venkateswara  
College of  
Engineering

**Department of Computer Science and Engineering**

*Five Days Short Term Training Program*

On

**Machine Learning and Data Science**

(12-06-2021 to 16-06-2021)



**CHIEF PATRON**

Prof. M. Sivanandham  
Secretary, SVCE

**PATRON**

Prof. S. Ganesh Vaidyanathan  
Principal, SVCE

**CONVENER**

Dr. R. Anitha  
HOD - CSE

**COORDINATORS**

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Mrs.D.Vinodha AP/CSE



: <https://meet.google.com/apx-ktpp-qnx>

Timing : 3.30 pm – 4.30 pm

e-certificate will be provided to all participants

[svce.ac.in](http://svce.ac.in)





## Five days online STTP on Machine Learning and Data Science

### AGENDA

- Session 1  
12-06-21

  - **Kick start on Machine Learning**
  - Mr.Kailash S, Machine Learning Engineer, Quantrium Tech Private Limited, Chennai.
- Session 2  
13-06-21

  - **Artificial Neural Networks**
  - Dr.R.Jayabhaduri, Associate Professor,SVCE,Sriperumbudur.
- Session 3  
14-06-21

  - **Data Science using R**
  - Dr.D. Senthilkumar, Assitant Professor, Anna University ,Trichy.
- Session 4  
15-06-21

  - **Descriptive Statistics**
  - Dr. N. Rajeswari, Associate Professor, SVCE, Sriperumbudur.
- Session 5  
16-06-21

  - **Recommender Systems**
  - Dr.K.S.Gayathri,Assistant Professor,SSN College of Engineering,Chennai.





## Day-1

### Profile of the Speaker

Mr. S. Kailash, Alumni of our college completed his B.E in 2020. He has got placed in Quantrium Tech Private Limited in the year 2020. During his college days, he has actively participated in various events and held various positions. He was the mentor at the google coding contest from November 2019 to February 2020. During this time, he was mentoring all pre-university students to contribute to the open-source project by guiding them through several tasks and reviewing the work. He was also the campus editor of LinkedIn and created content in the name of articles, short-forms, and videos. He was a campus ambassador for BITS Pilani, IIT-Bombay, and was also a student coordinator of Internshala.



He has undergone internships under Excellent technologies and Wipro. During his project intern at Wipro, he had taken one month project under data analytics and artificial intelligence. He also holds several certifications such as Programming in C++, How google does Machine Learning, A gentle introduction to Machine Learning using SciKit-Learn, Qwiklabs Quest Badges, Elements of AI, Programming with Python, Machine Learning with Python, Intro to TensorFlow, GateGoing: introduction to Golang, C++, and Fundamentals of data science. He has also received several honours and awards. He has also won the best paper award.



## Reflection Report on Machine Learning and Data Science workshop

### Day – 1

Dr.R.Anitha Prof. and Head/CS welcomed the speaker Mr.Kailas.S, Machine Learning Engineer, Quantrium Tech Private Limited, Chennai.



The speaker started with basic topics artificial intelligence, machine learning, deep learning, and data science. He explained the differences between ML and DL. He also highlighted the uses of deep learning like where the DL is used and the applications that involve the DL operations.

He also discussed the major sub-categories of machine learning such as supervised, unsupervised, semi-supervised, and reinforcement learning. The examples explained by him were related to the applications of artificial intelligence. The applications such as optical character recognition, surveillance systems, political campaign, autonomous driving vehicle, facial recognition, etc.



He also briefed about the combination of artificial intelligence with the other domains. He explained the AI in the internet of things that involved smart, agriculture, smart home, education, smart mobility, etc. He also explained to us about the involvement of AI in cybersecurity, big data.

He briefed about the projects related to the machine learning project pipeline that involved steps like data collection, data preparation, model selection, training model, model evaluation, hyper parameter tuning, and inference. Finally, he also briefed about the resources related to AI, ML, DL, and DS learning paths.

The workshop was so enlightening that the students were able to appreciate the topics taught. The students had an interactive session during the workshop. Some students currently doing research projects on machine learning and data science cleared their doubts with the speaker after the meeting got over. Students requested the hands-on session also.



## Day-2

### Profile of the Speaker

Dr. R.Jayabhaduri started her career in the department of Computer Science and Engineering at Sri Venkateswara College of Engineering, Chennai on May 30, 2003. Currently she is working as an Associate Professor and teaching for 18 years in the department of Computer Science and Engineering.

She received her B.E. and M.E. degrees in Computer Science and Engineering from Mepco Schlenk Engineering College, Sivakasi, India in 2001 and 2003 respectively. She received her Ph.D. degree in Computer Science and Engineering from Anna University, Chennai in 2016.

Jayabhaduri's research interests include Artificial Intelligence, Machine Learning, Optimization Algorithms and Bioinspired Computing. She has published about 18 papers in international journals and conferences.



She is an active member in organizing STTPs, FDPs and Workshops for the benefit of students and faculty members in the areas of Machine Learning, Deep Learning, Natural Language Processing and Internet of Things. She has delivered around 25 guest lectures in the domain of Machine Learning, Deep Learning, Natural Language Processing, Big Data Analytics and Internet of Things.

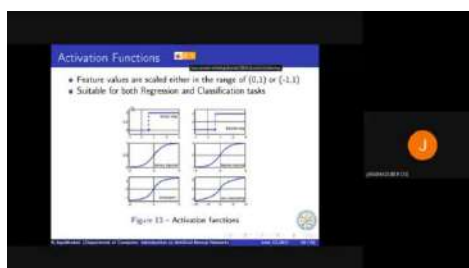
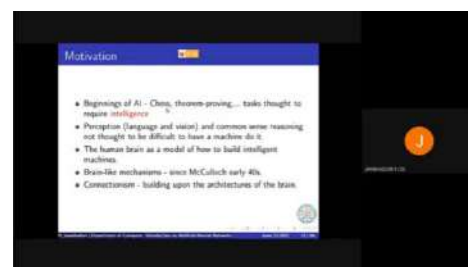
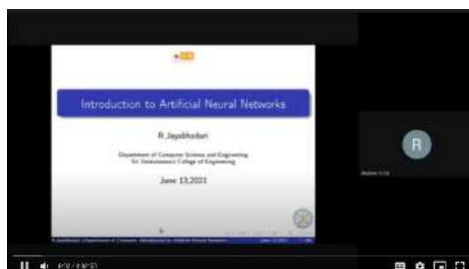




## Day -2 Report

The session started with an introduction to the speaker and the basics of artificial neural networks. Artificial neural networks play an important role in all technologies. She started by giving a general introduction to Artificial neural networks and artificial intelligence. She also explained the intelligent tasks that are associated with artificial intelligence. She gave a brief introduction to machine learning. She presented a brief overview of the Human nervous system and also what are the tasks that a human brain can perform. She also presented the difference between a simple artificial neural network along with the biological neuron and artificial neuron.

She also explained the characteristics of the neural network that included the pattern of connections between weights, the method of determining the weights on connections, and also activation function. She also briefed about the development of artificial neural networks and the research contribution from the year 1943 to date. The participants also gained knowledge about the learning paradigms of machine learning.





The introduction of the neural network based on the competition made the participants clear about the structure of the neural network. She also explained the python libraries for ANN implementation. Finally, she ended up the session by showing the applications related to the ANN such as character recognition, image recognition.

The students had an interactive session during the workshop. Some students currently doing research projects on artificial neural network cleared their doubts with the speaker after the meeting got over. Students requested the hands-on session also.



## **Day-3**

### **Profile of the Speaker**

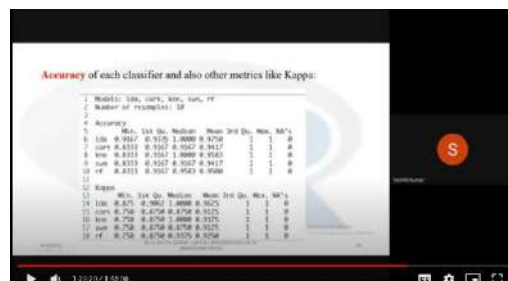
Dr. D. Senthilkumar is working as an Assistant Professor in CS department at University of College of Engineering (BIT Campus), Anna university, Trichy. He has 18+ years of teaching experience. He received his doctoral degree from Anna University for the research on “Efficient Feature Selection and Classification Techniques for Multi-Label Medical Datasets”. His specializations are mainly data warehouse and data Mining, data Science, database management system, data analytics, soft computing, applied statistics, operations research, discrete event system simulation, and supply chain management. He has published several papers in International and National journals including IEEE transactions, Elsevier, and springer. He has also reviewed papers of national and international conferences. He is active reviewer of journals namely, British Journal of Applied Science & Technology, Journal of Scientific Research and Reports, Journal of Basic and Applied Research international, British Journal of Mathematics & Computer Science, Asian Journal of Mathematics and Computer Research, Journal of Big Data – Springer Open, Advances in Research, Applied Clinical Informatics, International Journal of Information Technology & Decision Making, Asian Journal of Research in Computer Science, Computational Intelligence An International Journal, Wiley Periodicals, Journal of Intelligent & Fuzzy Systems, Advances in Science, Technology and Engineering Systems Journal (ASTESJ), Journal of Intelligent & Fuzzy Systems, Computers and Electronics in Agriculture, International Journal of Information Technology & Decision Making.



## Day -3 Report

The session started with an introduction to the speaker and the basics of data science and R. Data science is a study of data and the art of uncovering insights and trends that are hiding behind the data. It is also a process of using data to understand different things. He also explained the skills required for data science.

He briefed about the process involved in the data science project such as defining a project, preparing the data, evaluating the algorithms, improving, and presenting the results. He explained the use cases involved in data science such as social analytics in Facebook, improving e-commerce experience in amazon, operating and managing rides in uber, increasing the customer experience in various fields, etc.



He also briefed about the process of doing data science using R which involved null knowledge about the data science, data or even not necessary to be a



data science expert. He explained the key steps involved in data science such as loading the data, summarizing the data, evaluating algorithms, and making some predictions among the data. He explained in detail the steps involved in running the data science in R by installing the R software.

The students had an interactive session during the workshop. Some students currently doing research projects on data science and R cleared their doubts with the speaker after the meeting got over. Students requested the hands-on session also.



## Day-4

### Profile of the Speaker

Dr.N.Rajeswari is working as an Associate Professor in CS department at Sri Venkateswara College of Engineering. She has 20 years of teaching experience. She received her doctoral degree from Anna University for the research on 'Dysarthric Speech Recognition'. Her great intrigues are mainly pattern recognition, machine learning, deep learning in speech and vision. She has published several papers in International and National journals including IEEE transactions and Elsevier. She has also reviewed papers of national and international conferences. Dr.Rajeswari is a recognized supervisor for guiding research scholars of Anna University. She is an active member of IEEE society, ACM computing and Institution of Engineers. She has been recognized as a chartered engineer by The Institution of engineers India.



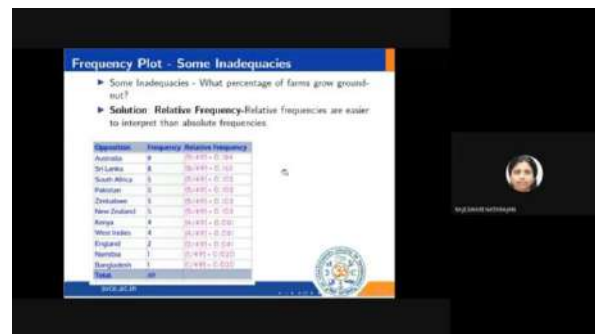
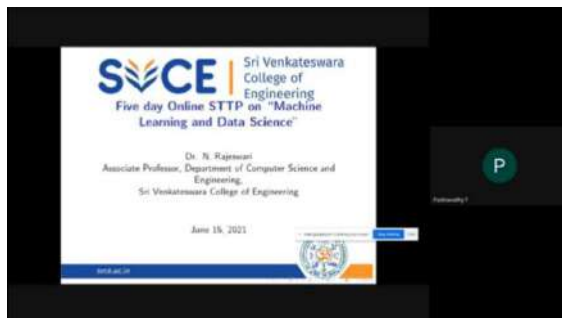


## Day -4 Report

The session started with an introduction to the speaker and an introduction to data science. She also explained the different types of data such as qualitative and quantitative. She also briefed about the examples related to the data.

She explained how qualitative data and qualitative data-nominal categorizes the object using only a finite set of discrete classes. She explained some more examples related to categorizing the data. The next model that involved quantitative data discrete was also briefed with some examples.

The presence of data can influence the quantitative attributes which involve regression analysis, the average value in the dataset, and also the spread of the data. She also explained about the frequency plot, long-tail distribution, grouped relative frequency bar charts in machine learning with the examples.





She explained the designing features of a machine learning system and how a histogram is constructed for continuous data. The students had an interactive session during the workshop. Some students currently doing research projects on descriptive statistics cleared their doubts with the speaker after the meeting got over. Students requested the hands-on session also.





## Day-5

### Profile of the Speaker

Dr. K.S. Gayathri is currently an Assistant Professor in the department of Information Technology, SSN college of Engineering. She has teaching experience of 20 years. She received her Bachelor's in Computer Science and Engineering from Madras University in 2001 and Master's in Computer Science and Engineering from Anna University in 2009. She earned her PhD degree from Anna University in 2018, thesis titled 'Activity Recognition in Smart Home'. Her research focuses on providing ambient intelligent solutions for smart environment. She is a recognized supervisor in Anna University and her research interests are Artificial Intelligence and Machine Learning. She has published around 18 research papers in reputed international journals and conferences. One of her research publication in Elsevier journal has received a certificate of appreciation for high impact factor journal publication from Anna University in 2018. She is an active reviewer in various international journals such as IEEE transactions, Elsevier and Springer. She is a Doctoral committee member in various universities. She has also guided several projects and organized workshops related to Artificial Intelligence.



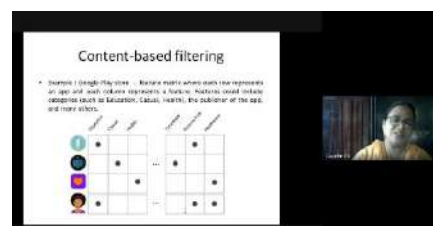
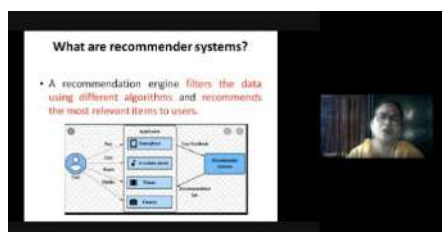
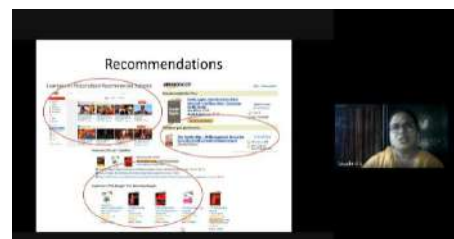


## Day -5 Report

The session started with an introduction to the speaker and an introduction to the recommender system. She briefed about the personalized recommendations on various applications. She explained the applications that involve recommender systems such as amazon, YouTuber, eBay, Yahoo, Netflix, etc. She also explained why do there is a need for recommender systems.

She explained the statistics on the application of recommender systems in brief. Also, the use and role of machine learning in recommender systems. The recommender systems filter the data using a different algorithm and recommend the most relevant items to users.

She also showed the design of recommender systems that involved the collection, storage, analysis, and recommendations. She explained the explicit and implicit data. She also briefed about the data storage following the process of analyzing and filtering the data.





She also presented an overview and approaches to the recommendation system. She explained content-based filtering and collaborative filtering. The real-time examples were useful to understand the concepts. The content-based recommender works more efficiently and filters the data more accurately.

She briefed about the memory-based approach, user-user collaborative filtering, item-based filtering. There are more model-based approaches. She explained what matrix factorization is. Finally, she briefed about the future recommender systems. The students had an interactive session during the workshop. Some students currently doing research projects on recommender systems cleared their doubts with the speaker after the meeting got over. Students requested the hands-on session also.



Day 1 :

Are You Satisfied with the session today?	Session helped you to know about emerging technology?	Mobile Number
yes	Strongly agree	9600633165
yes	Strongly agree	8667564173
yes	Strongly agree	9500151612
yes	Strongly agree	9499013138
yes	Strongly agree	7358132829
yes	Neutral	7395999020
yes	Strongly agree	8489983329
yes	Strongly agree	7550003628
yes	Strongly agree	8825926285
yes	Strongly agree	7010271753
yes	Strongly agree	+919941949400
yes	Strongly agree	09486057719
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