GLOBAL INSTITUTE OF ENGINEERING & TECHNOLOGY

A One Week Faculty Development Programme

On

"Data Science And its Applications"

(20th -25th July, 2020)

Organized by

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

GLOBAL INSTITUTE OF ENGINEERING & TECHNOLOGY

How to Apply:

Interested teaching faculty are required to fill Registration Form online only through Google forms at the link

Registration should be done between 30/06/2020 to 17/07/2020

Limited Registrations First Come First Serve

Note: There is no registration fee for FDP.

WHO SHOULD ATTEND?

The program is designed for Teaching Faculty working in Institutions offering Technical Education.

For any query regarding this programme, please contact the following persons.

Ms. Neha Jadhav
Coordinator
Assistant Professor, Dept. of CSE
GIET, Chilkur
Mobile: +91 9701750207
Email: iqac.giet.u6@gmail.com

Mrs. Shirisha
Assistant Professor, Head of CSE
GIET, Chilkur

ORGANIZING COMMITTEE:

Chief Patron:

Mrs.Sabhia Arifuddin
Secretary MEWS

Patrons:

1. Mr.K.M.Minhajuddin
   MBA
   Director-GPC
2. Mr. K M Fasihuddin,
   M.Tech
   Deputy Director GPC

Co-Patrons:

1. Prof. Ravindra Tiwari,
   Ph.D
   Dean-GPC
2. Prof. VVVS.Murthy,
   Ph.D
   Principal GIET
3. Mr.G.Ahmed Zeeshan
   BE., M.Tech., (Ph.D)., LMISTE
   Co ordinator IQAC

Coordinator: Ms. Neha Jadhav
Asst.Prof, Dept of CSE

Committee Members:

1. Dr. Venkata Naga Ramesh — Prof, Dept. of CSE
2. Mr. Syed Mazharuddin — Asst.Prof, Head Dept. of CSE
3. Mrs.Lakshmi Lavanya T — Assoc.Prof, Deptof CSE
4. Mr. V.Basha — Assoc.Prof, Deptof CSE
5. Mrs.M.Shirisha — Asst.Prof, and Assoc.Head Dept. of CSE
6. Mr. Mohd.Sirajuddin — Asst.Prof, Dept. of CSE
7. Ms. Sana Mateen — Asst.Prof, Dept. of CSE
8. Ms. Neha Jadhav — Asst.Prof, Dept. of CSE
9. Mrs.Shaik Sharif — Asst.Prof, Dept. of CSE
10. Mrs. Rayees Fathima — Asst.Prof, Dept. of CSE
11. Ms.Noore Illahi — Asst.Prof, Dept. of CSE
12. Mr.Subramaniyam — Asst.Prof, Dept. of CSE

ABOUT INSTITUTION:

Global Institute of Engineering and Technology, Hyderabad, Telangana is affiliated to JNTUH & approved by AICTE. GIET was established in the year 2006 with a vision To produce technologically skilled Engineers of world class competency to address global challenges. GIET nurtures and supports a unique system of education structure on values and combines the tenets of the academic excellence with corporate professionalism. The primary objective at Global Institute of Engineering and Technology is to impart quality education which leads to quality living. Located at Moinabad, the sprawling campus spread over 28 acres of lush greenery creates the most conducive environment for education. GIET offers undergraduate programmes in ECE, EEE, CSE, CE, ME, AI & ML* and postgraduate programmes Embedded Systems & Structural Engineering.

The system of education at Global Institute of Engineering & Technology grooms the students to rise into professionals and leaders of high academic caliber with unblemished character. Dedicated, experienced and qualified faculty help in honing the skills of students at early level of their learning.
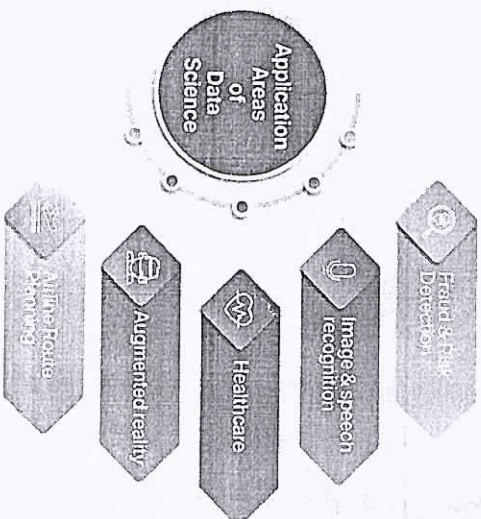
ABOUT THE DEPARTMENT:

The Department has the necessary infrastructural facilities required for imparting high-quality education and the department is fully structured to meet the contemporary needs of the industry. Imparting high-quality education is supported by well qualified and experienced faculty; further support is extended by technically skilled and competent programmers. Seminars, Workshops and Technical Symposia are conducted in the department to keep faculty and students updated with the latest developments in various technologies. The students in the department are moulded into competent software professionals, to face the challenges of the IT sector.

ABOUT THE FDP:

The term "data" being mostly used, experimented, analyzed, and researched, "Data Science and its Applications" finds relevance in all domains of research studies including science, engineering, technology, management, mathematics, and many more in wide range of applications such as sentiment analysis, social medial analytics, signal processing, gene analysis, market analysis, healthcare, bioinformatics etc.

5 Application Areas of Data Science

TOPICS TO BE COVERED:

- Getting Started with Data Science
- Regression and Classification Problems.
- Algorithm Bias in Health Care.
- Recommendation Systems.
- Regression Algorithms.
- Classification Algorithms.
- Augmented Reality.
- Deep Learning.

Below are the means to help you with your self-reflection, self-verification:

1. Pre-FDP survey
   Starts on 30/06/2020 and Ends on 17/07/2020
   https://docs.google.com/forms/d/e/1FAIoQLSfY8
   nkCyb2v8ceQMlkw_FH95QpvuHvn2gTGTNBe
   V439rB_X2A/viewform?usp=sf_link
   This is a pre-requisite for participating in the FDP.

2. Attendance (automatic tracking of login time and intermittent "are-you-there" indicators) This FDP is like a sentence spoken over 6 days. Participation in all sessions is desirable to get all the proposals being put forth.

3. Responding to polls

4. Assignments day 1-2 (2 assignments)
   a. Assignment 1
      Starts on 20/07/2020 4PM and Ends on
      21/07/2020 6AM
      https://docs.google.com/forms/d/e/1FAIpuiSj04
      QCmGeNV_8W/lufIvu5AfGVhSdg4tUIo0Ilwkv8
      A/viewform?usp=sf_link
   b. Assignment 2
      Starts on 21/07/2020 4PM and Ends on
      22/07/2020 6AM
      https://docs.google.com/forms/d/e/1FAIpQLSfcH
      n7ZI_JvegLeVGocq_8tryHJ66Nj_Cl33774NEG
      V89K5sw/viewform?usp=sf_link

5. Feedback - Google Form
   Start on 24/07/2020 4 PM and Ends on
   25/07/2020 8 PM
   https://docs.google.com/forms/d/e/1yAIpQLScM
   R-
   hSzv4vf7KtzLrwlopwXwwUa8ZKh1EZcgvP7Op
   YjZarZAw/viewform?usp=sf_link

GLOBAL
Institute of Engineering & Technology

(Approved by AICTE & Affiliated to JNTUH)
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JNTUH Code(U6)   CIVIL – CSE – MECH – ECE – EEE – MBA – M.Tech.   EAMCET Code-GLOB

Department of Computer Science and Engineering

SYED MAZHARUDDIN
B.Tech, M.Tech (Phd).
Assistant Professor & Head

Lr.No: CSE/STAFF/FDP-DSAP/2020/06/01

Date: 16-06-2020

To

The Principal
GIET

Respected Sir/Madam,

  Sub: Hosting a One Week Faculty Development Programme on Python programming– Reg.

*****

 The Department of Computer Science Engineering is planning to host a **One Week Faculty Development Programme on Data Science And its Applications through online mode** from 20/07/2020 to 25/07/2020 .Kindly accord approval so as to make necessary arrangements for hosting a One Week Faculty Development programme on Data Science and its Applications.

Thanking you.

Sd/-
HEAD

GLOBAL
Institute of Engineering & Technology

Department of Computer Science and Engineering

SYED MAZHARUDDIN
B.Tech, M.Tech,.(Ph.D)
Assistant Professor & Head

Date: 17/06/2020

CIRCULAR

The Department of Computer Science and Engineering is hosting for **A One Week FDP on Data Science and its Applications through Online Mode** for all the faculty of CSE Department from 20th July 2020 to 25th July 2020. All the faculties are here by informed to register for the course on or before 20th July 2020. The Coordinator for the course is Ms.Neha Jadhav, Assistant Professor, Department of CSE.

Sd/HEAD

HEAD
Department of Computer Science & Engg.
Global Institute of Engineering & Technology
Chilkur (V)., Moinabad (M)., R.R. Dist.T.S.-501504

Cc to:
Principal
Coordinator IQAC
Training & Placement Cell
Notice board
File

GLOBAL
Institute of Engineering & Technology

Department of Computer Science and Engineering
A One WeekFDP
ON
Data Science and its Applications
(20th-25th July,2020)
PROGRAMME SCHEDULE

	TIME	SESSION	SPEAKER
Day 1	9:30 AM - 10:00 AM	Inauguration	Mr.SyedMazharuddin HOD,CSE
	10:00 AM - 11:00 AM	General Introduction to AI, Hands-on Regression and Classification problems	Mr.Amar AI Labs Continental Bengaluru.
	11:00 AM - 11:30 AM	HIGH TEA	
	11:30 AM - 01:00 PM	Machine Learning, Algorithmic bias in health care – I	Mr.Hari TCS Hyderabad.
	01:00 PM - 02:00 PM	LUNCH BREAK	
	02:00 PM - 03:30 PM	Introduction to Deep Leaning, Hands-on on Image Classification and Transfer learning	Mr.Amar AI Labs Continental Bengaluru.
	TIME	SESSION	SPEAKER
Day 2	09:30 AM - 11:00 AM	General introduction to various text analytics module with Hands-on modules like NER, Text classification use cases	Mr.Prakash NetElixir. Hyderabad.
	11:00 AM - 11:15 AM	TEA BREAK	
	11:15 AM - 01:00 PM	Data Pre-processing, Hands-on Exercise	Mr.Anil Global Software Hyderabad
	01:00 PM - 02:00 PM	LUNCH BREAK	
	02:00 PM - 03:30 PM	Algorithmic bias in health care – II	Mr.Hari TCS Hyderabad.
	TIME	SESSION	SPEAKER
Day 3	09:30 AM - 11:00 AM	Object detection, Hands-on on EfficientDet Object detector, Active learning	Mr.Amar AI Labs Continental Bengaluru.
	11:00 AM - 11:15 AM	TEA BREAK	
	11:15 AM - 01:00 PM	Regression algorithms, Hands-on Exercises	Mr.Anil Global Software Hyderabad
	01:00 PM - 02:00 PM	LUNCH BREAK	

	TIME	SESSION	SPEAKER
	02:00 PM - 03:30 PM	Algorithmic bias in health care – III	Mr.Hari TCS Hyderabad.

	TIME	SESSION	SPEAKER
Day 4	9:30 AM - 11:00 AM	Transformer based models Sub word tokenization methods followed by Demo	Mr.Prakash NetElixir. Hyderabad.
	11:00 AM - 11:30 AM	HIGH TEA	
	11:30 AM - 01:00 PM	Classification algorithms, Hands-on Exercises	Mr.Anil Global Software Hyderabad
	01:00 PM - 02:00 PM	LUNCH BREAK	
	02:00 PM - 03:30 PM	Introduction to open-source libraries for Graph Neural Network, Hands-on	Mr.Nagesh Vignan University Hyderabad.
	TIME	SESSION	SPEAKER
Day 5	09:30 AM - 11:00 AM	Recommendation systems	Mr.Prakash NetElixir. Hyderabad.
	11:00 AM - 11:15 AM	TEA BREAK	
	11:15 AM - 01:00 PM	Recommendation systems	Mr.SaiSatish Founder and CEO of Indian Servers.
	01:00 PM - 02:00 PM	LUNCH BREAK	
	02:00 PM - 03:30 PM	A Comprehensive Knowledge on Neural Networks for Graph	Mr.Nagesh Vignan University Hyderabad.
	TIME	SESSION	SPEAKER
Day 6	09:00 AM - 11:AM	Question & Answer Session.	Mr.Nagesh Vignan University Hyderabad.
	11:00 AM - 11:15 AM	TEA BREAK	
	11:15 AM - 02:00 PM	Valedictory function.	

Sd/-
Ms.NehaJadhav
Coordinator
Assistant Professor
Department of CSE

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Survey No. 179, Chilkur (V), Moinabad (M), Ranga Reddy Dist. TS.

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Department of Computer Science and Engineering

A One Week Faculty Development Programme
On
Data Science And its Applications
(20th -25th July, 2020)

LIST OF PARTICIPANTS

S. NO	NAME OF THE PARTICIPANT	DESIGNATION
1	Mr. Syed Mazharuddin	Associate Professor & Head
2	Dr.J.Venkata Naga Ramesh	Professor
3	Mrs. Lakshmi LavanyaTumu	Associate Professor
4	Mr. V. Basha	Associate Professor
5	Mrs. M. Shirisha	Assistant Professor & Associate Head
6	Mr.Mohd. Sirajuddin	Assistant Professor
7	Ms. Sana Mateen	Assistant Professor
8	Ms.NehaJadhav	Assistant Professor
9	Mr.Shaik Sharif	Assistant Professor
10	Mrs.RayeesFathima	Assistant Professor
11	Ms.Nooreilahi	Assistant Professor
12	Mr.Subramaniyam	Assistant Professor
13	Mr. K Umashankar	Assistant Professor
14	Ms. G Suchitra	Assistant Professor
15	Mr. C. Rama Krishna	Assistant Professor
16	Mr. Y. Venkat Rao	Assistant Professor
17	Mrs. R. Hima	Assistant Professor

18	Mrs. G. Jaya Bharathi	Assistant Professor
19	M. Naveen Babu	Assistant Professor
20	K. Ambika	Assistant Professor
21	B. Nageshwar Rao	Assistant Professor
22	Haripriya Bogga	Assistant Professor

Sd/-
Coordinator
Ms.Neha Jadhav
Assistant Professor
Department of CSE

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Institute of Engineering & Technology

Timestamp	Email-ID	Name of the Faculty	Declarations
07-20-2020 15:50:20	mazhar.syed83@gmail.com	Mr. Syed Mazharuddin	I hereby declare that the above information is correct.
07-20-2020 15:55:28	nagaramesh.1785@gmail.com	Dr.J.Venkata Naga Ramesh	I hereby declare that the above information is correct.
07-20-2020 16:00:36	lavanya.tumu@gmail.com	Mrs. Lakshmi LavanyaTumu	I hereby declare that the above information is correct.
07-20-2020 16:05:44	basha226@gmail.com	Mr. V. Basha	I hereby declare that the above information is correct.
07-20-2020 16:10:52	shirishakirans@gmail.com	Mrs. M. Shirisha	I hereby declare that the above information is correct.
07-20-2020 16:16:00	mohd.siraj587@gmail.com	Mr.Mohd. Sirajuddin	I hereby declare that the above information is correct.
07-20-2020 16:21:08	sana.mateen67@gmail.com	Ms. Sana Mateen	I hereby declare that the above information is correct.
07-20-2020 16:26:16	jadhav.neha@gmail.com	Ms.NehaJadhav	I hereby declare that the above information is correct.
07-21-2020 16:31:24	sharif.789@gmail.com	Mr.Shaik Sharif	I hereby declare that the above information is correct.
07-20-2020 16:36:32	rayeesfathima2010@gmail.com	Mrs.RayeesFathima	I hereby declare that the above information is correct.
07-20-2020 16:41:40	illahinoore90@gmail.com	Ms.Nooreillahi	I hereby declare that the above information is correct.
07-20-2020 16:46:48	subhramanyammtech@gmail.com	Mr.Subramaniyam	I hereby declare that the above information is correct.
07-21-2020 16:51:56	Sivakumar34@gmail.com	Mr. K Umashankar	I hereby declare that the above information is correct.
07-20-2020 16:57:04	suchitha.77@gmail.com	Ms. G Suchitra	I hereby declare that the above information is correct.
07-22-2020 17:02:12	krishna.rama45@gmail.com	Mr. C. Rama Krishna	I hereby declare that the above information is correct.
07-22-2020 16:26:16	venkat.76@gmail.com	Mr. Y. Venkat Rao	I hereby declare that the above information is correct.
07-21-2020 16:31:24	hima.67r@gmail.com	Mrs. R. Hima	I hereby declare that the above information is correct.
07-20-2020 16:36:32	jaya.bharathi75@gmail.com	Mrs. G. Jaya Bharathi	I hereby declare that the above information is correct.
07-20-2020 16:41:40	naveenbabu67@gmail.com	M. Naveen Babu	I hereby declare that the above information is correct.
07-22-2020 16:46:48	ambika89@gmail.com	K. Ambika	I hereby declare that the above information is correct.
07-21-2020 16:51:56	nagesh.bandratiu@gmail.com	B. Nageshwar Rao	I hereby declare that the above information is correct.
07-20-2020 16:57:04	haripria.bogga@gmail.com	Haripriya Bogga	I hereby declare that the above information is correct.

A REPORT
ON
FDP
Data Science and its Applications

The CSE Department has arranged a Faculty Development Programme on Data Science and is Applications for faculties of CSE Department from 20th-25th July, 2020 in the campus. It aims to provide the knowledge and skills needed for Faculty to cater to the present day learners and their learning styles.

Day 1:

The first Day of the FDP initiated with the motivating speech of Dr.K.Sivalingam, Principal of Global Institute of Engineering and Technology, followed by the discussion of its importance for the faculty by Mr.SyedMazharuddin, Head Department of Computer Science. The introduction to the speaker was given by Ms Neha Jadhav, Computer Science and Engineering. The coordinator of this occasion, Ms Neha Jadhav welcomed the gathering. Followed by this our Resource Persons, delivered there inaugural and introductory speech.

Our Resource Person, Mr. Amar, started his lecture by giving clear insights on what is artificial intelligence, how AI is useful in day-to-day life, difference among AI, Machine Learning and Deep Learning, and various branches on the Artificial Intelligence. Then he discussed about regression, classification problems and started hands-on session.

Our Resource Person, Mr.Hari, started his lecture by giving clear insights on what is machine learning and what are the problems and myths we are facing with machine learning. Then he discussed about various bias in machine learning, deep learning, types of bias such as historical bias, representation bias, measurement bias, evaluation bias and aggregation bias in healthcare.

Our Resource Person, Mr. Amar, gave an overview on neural network, structure of a single artificial neuron (perceptron), different activation functions, and connected neural networks. Then he discussed about flow of forward and backward propagation, one-hot encoding, soft max

activation/classifier in neural network and loss function. After that, he gave hands-on on training and testing the data in a dataset and getting the result of the test using CNN.

Day 2:

Our Resource Person, Mr. Prakash, started his lecture by giving clear insights on what is NLP, how the data has been evolving and generating, and the basic components pf NLP. Then he discussed about various parts of speech tagging, entity, topic, text and relationship extractions and has shown the POS Tagging-Perceptron and Address Parser.

Our Resource Person, Mr.N.Anil, started his lecture by giving clear insights on what is data, types of data, how data is generating in these days, and how data is cleaned. Then he has shown the live demonstration of reading the data from CSV and performing cleaning.

Our Resource Person, Mr.Hari, started his lecture by giving clear insights on AI in healthcare in present situation. Then he discussed about Machine Learning in Healthcare and how it is improving the accuracy of diagnosis, prognosis and risk prediction of a patient which reduces the medication errors. After that, he discussed about the various ethical principles and core requirements of machine learning in healthcare.

Day 3:

Our Resource Person, Mr. Amar, started his lecture by giving clear insights on SSD, YOLO, R-CNN, and Fast R-CNN. After that, he discussed about one of the best object detection networks named EfficientDet and has shown the live demonstration of EfficientDet. Then he discussed about limitations of CNN and overcoming them with Transformers in CV.

Our Resource Person, Mr. N.Anil, started his lecture by giving clear insights on ML, and the differences among AI/ML/DL/NN. Then he discussed about various types of Machine Learning types. After that, he has discussed the Regression Algorithms and shown the live demonstration of Regression Algorithms.

Our Resource Person, Mr.Hari, started his lecture by giving clear insights on Whole Systems Integrated Care (WSIC) Dashboards. Then he gave idea about how to use integrated care data to understand the population and finding the innovative of working togetherness for better support the needs of the population. After that, he discussed about who are developing WISC, specifications of WISC and viewing the patient activity through WISCs.

Day 4:

Our Resource Person, Mr.Prakash, started his lecture by giving clear insights on how to sequence the sequence modeling, what is a transformer, how self-attention process works, and how attention is different. After that, he discussed about Encoder Internals, various applications and shown the live demonstration of Transformer Library.

Our Resource Person, Mr. N.Anil, started his lecture by giving clear insights on Multi Linear Regression and Logistic Regression. Then he discussed about Naïve Bayes Classifiers for Classification based on the independence among predictors. After that, he has shown the live demonstration of Classification on Flower Dataset.

Our Resource Person, Dr.Nagesh, started his lecture by giving clear insights on different network types such as social networks, brain neural connections, communication, bibliographic network, and biological networks. Then he gave idea about application of Network Analytics/Network Science and different challenges in Network Analytics. After that, he discussed about Unsupervised Node Embedding and Deep Learning on Graphs.
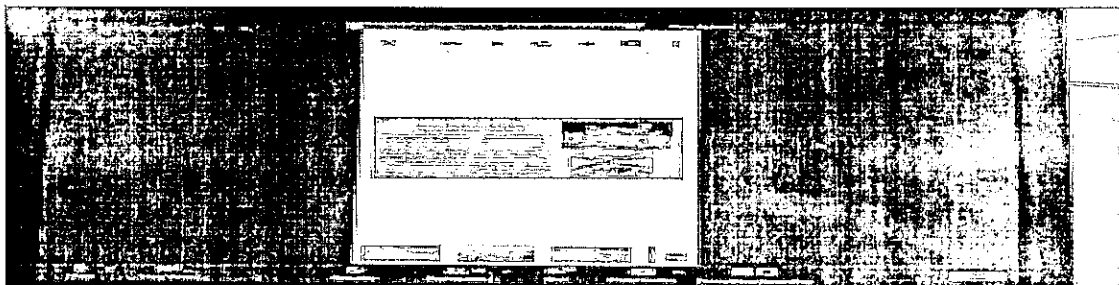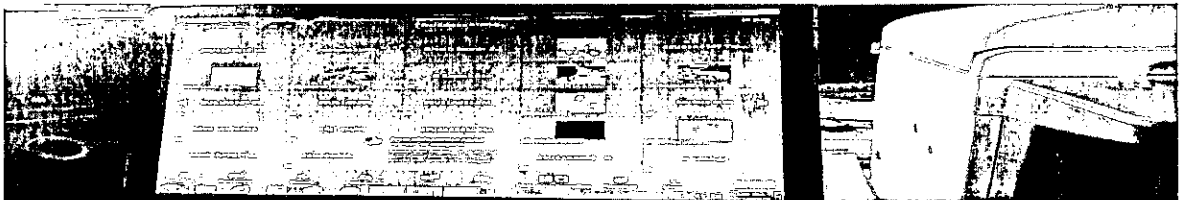
Day 5:

Our Resource Person, Mr.Prakash, started his lecture by giving clear insights on overview of how products will be recommended, what are the challenges in recommendation system, and

types of recommendations. Then he discussed about the trending recommendation to customers which use learning-to-rank methods.

Our Resource Person, Dr. Nagesh, started his lecture by giving clear insights on network representation learning / network embedding. After that, he discussed about various applications of network embedding such as knowledge representation, recommender systems, NLP, and Social Network Analysis. Then he has shown the live demo of Word Embedding.

Day 6:

Our Resource Persons, had a Question and Answer Session in which Faculty Cleared there Doubts and Next Valedictory Function Started for the Resource Persons.

Sd/-

Coordinator

Ms Neha Jadhav

Assistant   Professor

Department of CSE

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(Recognized Under Section 2(f) Of UGC Act 1956)
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Phone: 9985096961, 879010 1015
E-Mail: principal.giet.u6@gmail.com/gietcsedepartment@gmail.com
ECE – EEE – CSE – CIVIL – ME – MBA - M.Tech   EAMCET Code (GLOB)

JNTUH Code (U6)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
A One Week Faculty Development Program
On
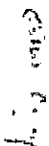
Data Science And its Applications

(20th – 25th July 2020)

CERTIFICATE OF PARTICIPATION

This is to certify that Ms./Mr. _____ M.Shirisha _____ has

actively participated in One Week Faculty Development Program on "Data Science And its Applications" held from 20th

July 2020 to 25th July 2020 at Global Institute of Engineering and Technology.

Ms.Neha Jadhav
Coordinator

Mr.Syed Mazharuddin
Head of the Department

Dr.K.Siva Lingam
Principal