St. JOSEPH'S COLLEGE OF ENGINEERING

OMR, CHENNAI – 119

Spoken Tutorial
22 - 23

QIC of our institutions, in collaboration with IIT Bombay and Anna University, is conducting an online workshop that covers Free Online Software Sources (FOSS) such as Latex, Java, C/C++, Open foam, Scilab, PHP, Python, etc. This academic year, students underwent a workshop on different domain languages. Following the workshop, students are provided with study materials to help them in facing a 45-minute objective-type online test. Students cleared the online test and achieved an e-IIT Certificate from IIT Bombay. These workshops create awareness and interest among the students in learning the new software.

Quality Improvement Cell
Spoken Tutorial Training Report (2022-2023)

Sl.No	Software Course	Department	Batch/Year	Trained	Attended	Received e-IIT Certificate	Staff in-charge
1.	Python	Artificial Intelligence and Data Science	2021-II	65	65	63	Mrs P N Jeipratha
2.	Python	Artificial Intelligence and Machine Learning	2021-II	68	68	58	Dr.L.Sherly
3.	QGIS	Civil Engineering	2020-III	35	35	29	Mrs. R. Rudhra
4.	QCAD		2021-II	59	57	32	
5.	Advanced Cpp	Biotechnology	2020-III	60	35	17	Dr. G. Baskar
6.	Advanced Cpp		2021-II	58	58	44	
7.	Scilab	Chemical Engineering	2020-III	47	43	18	Dr.B.SenthilRathi
8.	C and Cpp		2021-II	63	63	30	
9.	C and Cpp	Computer Science and Engineering	2020-III	194	161	133	Mrs.P N Jeipratha
10.	Python		2021-II	198	183	167	
11.	Python	Electrical and Electronics Engineering	2020-III	150	150	132	Dr. P.Anbarasan
12.	C and Cpp		2021-II	194	194	181	

St. JOSEPH'S COLLEGE OF ENGINEERING

OMR, CHENNAI – 119

Quality Improvement Cell
Spoken Tutorial Training Report (2022-2023)

Sl.No	Software Course	Department	Batch/Year	Trained	Attended	Received e-IIT Certificate	Staff in-charge
13.	Python	Electronics & Communication Engineering	2020-III	189	189	169	Mrs.K.Jasmine Mystica Mrs.E.Malarvizhi
14.	C and Cpp		2021-II	181	192	173	
15.	Scilab	Electronics & Instrumentation Engineering	2020-III	39	36	36	Mrs. S.Meena
16.	C and Cpp		2021-II	54	51	51	
17.	C and Cpp	Information Technology	2020-III	181	174	169	Dr.L.Sherly
18.	Python		2021-II	198	197	169	
19.	C and Cpp	Mechanical Engineering	2020-III	182	159	137	Dr. M.Arun
20.	Python		2021-II	156	143	74	
Total number of students :				**2371**	**2253**	**1882**	
Co-ordinator :			**Dr. R. Avudaiammal**				

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119.

NPTEL 22 - 23

We also encourage and provide the necessary infrastructure for online courses like NPTEL (National Programme on Technology Enhanced Learning). The credentials gained by students through these value added courses are very helpful in getting a job in the competitive market and shows their preparedness to take up the challenges ahead.

College Roll no	Name	Course Name	Email Id	Certificate Type
312420205118	VISHWA R	Python for Data Science	amulbabyva@gmail.com	Elite
312319203011	J CELSON	Natural Gas Engineering	celsonjohnson7494@gmail.com	Successfully completed
312319106035	Dhanushya NV	Embedded System Design With ARM	dhanushyanv@gmail.com	Elite
312320106064	JOSHUA GIFTSON I	Python for Data Science	joshuagiftson03@gmail.com	Elite
20IT207	HARSHITHA T	Data Science for Engineers	harshimadhan@gmail.com	Successfully completed
312319203050	Theresa Kasthuri Dinah S	Equipment Design: Mechanical Aspects	samuel27theresa@gmail.com	Successfully completed
20CH209	PRAVEEN KUMAR S	Introduction to Operating Systems	praveengeekumar@gmail.com	Successfully completed
20EC152	Sandeep Kumar M N	System Design Through VERILOG	mnsandeepkumar@gmail.com	Elite+Silver
20CH209	PRAVEEN KUMAR S	Demystifying Networking	praveengeekumar@gmail.com	Elite
20EC152	Sandeep Kumar M N	Introduction to Operating Systems	mnsandeepkumar@gmail.com	Successfully completed
20EC238	VIGNESH KANNA R	System Design Through VERILOG	vickykanna2002@gmail.com	Elite
21CS110	Srivarshini S	Python for Data Science	vvarsvika@gmail.com	Elite+Silver
20EC319	YAZHINI M S	Embedded System Design With ARM	yazhmathi7112@gmail.com	Successfully completed
20EE251	Belshanth b	Introduction To Machine Learning - KGP	bbell7080@gmail.com	Elite

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119.

St. JOSEPH'S COLLEGE OF ENGINEERING

OMR, CHENNAI – 119

College Roll no	Name	Course Name	Email Id	Certificate Type
312420205118	VISHWA R	Python for Data Science	amulbabyva@gmail.com	Elite
21CS210	S ATHITHIAN	Ethical Hacking	arcaneknight52@gmail.com	Successfully completed
21EE204	PRADEEPA G	Introduction To Internet Of Things	gpradeepaa12@gmail.com	Elite
21CS203	HARINI J	Programming In Java	harinsiva01@gmail.com	Elite+Silver
22CS149	S SHARMISTHA	Introduction To Internet Of Things	s.sharmistha27@gmail.com	Elite
22ME231	Arun M	Data Analytics with Python	akkscsk@gmail.com	Successfully completed
21CS352	Anto Melvin Mathew	Programming In Java	antomelvinmathew@gmail.com	Successfully completed
20EC230	THAMARAI KANNAN G	Introduction To Internet Of Things	g.thamaraikannan0411@gmail.com	Elite
20ME166	SURYA PRAKASHS M	IC Engines and Gas Turbines	suryaprakashs2002@gmail.com	Elite
20ME166	SURYA PRAKASHS M	Thermal Engineering: Basic and Applied	suryaprakashs2002@gmail.com	Successfully completed
	PRAVIN R	Biomass Conversion and Biorefinery	omexpravin@gmail.com	Elite+Silver
	Alamelu Mangai S	Safety and Risk Analytics	jananisrejeth@gmail.com	Elite
	Alamelu Mangai S	Organizational Design Change and Transformation	jananisrejeth@gmail.com	Elite
22EC1236	Arun Kumar M	Sensors and actuators	marunkumar0203@gmail.com	Elite
3.12E+11	SARUGESAN S	Safety and Risk Analytics	sarugesan2003@gmail.com	Elite
20CS131	Sivaraam T K	Foundation of Cloud IoT Edge ML	sivaraamtk@hotmail.com	Elite+Silver
19ME123	PRINCE ANTONY CLARET S	Mechatronics	pack24102001@gmail.com	Successfully completed
22ME243	AKASH S S	Fundamentals of Automotive Systems	akashchandu2005@gmail.com	Successfully completed
20IC204	K DHIVAHAR	Industrial Automation And Control	dhivaharkanna23@gmail.com	Successfully completed
20EE224	Ramya R	Power System Engineering	ramya191002@gmail.com	Successfully completed

NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to

BELSHANTH B

for successfully completing the course

Cloud Computing and Distributed Systems

with a consolidated score of **58** %

Online Assignments	24.5/25	Proctored Exam	33.75/75

Total number of candidates certified in this course: **2219**

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Jan-Mar 2023
(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL23CS27S44341666   To validate the certificate   No. of credits recommended: 2 or 3

NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to

SREERAM AM

for successfully completing the course

Data Base Management System

with a consolidated score of **45** %

Online Assignments	15.29/25	Proctored Exam	30/75

Total number of candidates certified in this course: **3518**

Jan-Mar 2023
(8 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23CS41S24345872   To validate the certificate   No. of credits recommended: 2 or 3

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119.

NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to

GOKUL N

for successfully completing the course

Electric Vehicles - Part 1

with a consolidated score of **50** %

Online Assignments	16.67/25	Proctored Exam	33.68/75

Total number of candidates certified in this course: **1010**

Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Feb 2023

(4 week course)

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam
FREE ONLINE EDUCATION

Roll No: NPTEL23EE01S44342143

To validate the certificate

No. of credits recommended: 1 or 2

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119.

Workshop and Event 22 – 23

JUNE 2022

Department of Electrical and Electronics Engineering

S.No	Events	Remarks
1.	 *PIC: IEEE event poster*	IEEE Women In Engineering AG under St. Joseph's College of Engineering Student Branch Chapter organized "MYSTERIOUS PLAY- A Riddle Competition" for School, Diploma and College students on 28th June 2022. The objective of the event is basically riddles can support one's problem solving, logic and critical thinking skills. The event was coordinated by Ms. Kaviya P and Ms. Ramya R . Around 45 students participated in this contest. Merit E-Certificates were provided to the Winners and Participation E- Certificates were provided to all the participants .

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119

2.	PIC: IEEE event poster	IEEE Women In Engineering AG under St. Joseph's College of Engineering Student Branch Chapter organized " **DOODLE ART-An Art Competition**" on behalf of **international day against drug abuse and illicit trafficking** for School, Diploma and College students on 28th June 2022. The participants made their art on drug abuse and illicit trafficking and uploaded their creations in the submission link . The event was coordinated by Ms. Ramya R and Ms. Kaviya P. Around 40 students participated in this competition. Merit E-Certificates were provided to the Winners and Participation E- Certificates were provided to all the participants .
3.	PIC: IEEE event screen shot	The IEEE Power Electronics Society of St.Joseph's College of Engineering has organized a "Distinguished Lecture Program" with Dr. Tobias Geyer who is an excellent speaker and has been working for 20 years in power conversion control with a particular focus on model predictive control and modulation. He received the Ph.D. in control theory and the Habilitation degree in power electronics from ETH Zurich. The event started with our SBC Counsellor Mr. R. Sreekanth giving a brief intro about PELS day and our PELS society Activities. Dr. Tobias then took over the session. The various types of Model Predictive drives, their Advantages over classical drives and Their applications were clearly explained by our speaker with a wonderful Presentation and Other simulations. After the explanation the speaker patiently answered all the participants' questions. Then as a Token of our Appreciation an E-momento was presented to the speaker. Then our PELS Chairperson Mr. Elanchezhiyan R J, Explained about the benefits and advantages of PELS Membership and he shared the coupon code for availing complimentary membership for the First time PELS membership. Finally the event ended with a memorable Photo session to capture this wonderful moment. The Session was really informative and Participants got to learn some new concepts in power electronics.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Events conducted:
The following events have been conducted during June 2022 at National Level

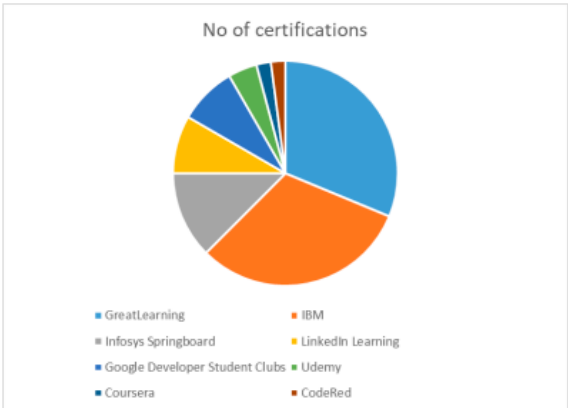| i). Institution's Innovation Council-Ministry of MHRD Initiative	Details
1. Shafaras J - IV C 2. Sethuraman B - IV C 3. Suryaprakash N - IV C **Received a grant of Rs. 12,00,000 for Business Model Development in MSME IDEA HACKOTHAN 2022**	**Project Title:** E- SAPS Electric Shock Accident Prevention System **Mentors:** **Category: Power** **Dr. P. Ezhilarasi – HoD Lab Affairs** **Dr. Rajesh Kannan – Associate Professor, Department of ECE**

PIC: IEEE Training program

Abishlal N S (2019 - 2023) participated in the IEEE PES R10 Student Chapter Training Program being held in PARKROYAL COLLECTION Marina Bay, Singapore on November 01, 2022.

Sl. No.	Photographs Captured During Event	Corresponding remarks in regarding the status of activity execution
3	**Ms. J. Divya, J. Nithishram, P. Naveenji** published a conference paper **(Scopus Indexed)**	**Student and Staff Publication** **J. Divya, J. Nithishram, P. Naveenji,** "Multimodal Feature Selection for Android Malware Detection Classifiers", 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), Publisher: IEEE, E ISBN: 978-1-6654-7413-9, Print ISBN: 978-1-6654-7414-6, pp. 1-5, doi: 10.1109/ICSES55317.2022.9914324, 2022. **(Indexed in Scopus)** **Abstract:** Android applications are fast evolving across the mobile ecosystem, yet Android malware is always emerging. Many researchers have looked into the issue of Android malware detection and proposed hypotheses and methods from various angles. Machine learning appears to be an efficient and promising technique to detect Android malware, according to existing studies. Our paper proposes a simple yet feasible approach to detect android malware using existing machine learning methodologies. We utilize a novel approach for considering multiple appropriate features called the Multivariate Feature Ranking algorithm that focus on deriving the most suitable features which is then applied to classifier models viz Decision Tree, Ada Boost ensemble method, Random Forest and Multi-layer perceptron. We were able to achieve an accuracy of 92% at a high level for the multi-layer perceptron model considering the Drebin dataset under experiment. Putting forth machine learning as the key aspect, we performed data acquisition, data pre-processing, novel feature selection methodology, followed by multiple classifier models that were evaluated and analyzed for further interpretation. The experimental results revealed that the modified feature selection method could help improve classification accuracy for baseline models, which indeed leads to future scope of improvement with advanced deep learning feature learning techniques.
4	**Dr. C. Heltin Genitha, R. Kiruba Sangaree, V. Kokilavani** published a conference paper **(Scopus Indexed)**	**C. Heltin Genitha, R. Kiruba Sangaree, V. Kokilavani,** "Intelligent Face Mask and Body Temperature Detection System using Machine Learning Algorithm", 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems, Publisher: IEEE, E ISBN: 978-1-6654-7413-9, Print ISBN: 978-1-6654-7414-6, doi: 10.1109/ICSES55317.2022.9914237, pp. 1-6, ICSES 2022. (Indexed in Scopus) **Abstract:** Face mask and body temperature detection is necessary for current pandemic period. Detecting face mask and body temperature helps in decreasing or to avoid spreading of COVID cases especially in crowded areas. The main purpose of face mask recognition and temperature prediction system is to find whether a person is wearing a mask or not and to check the body temperature. With the help of deep neural network based Convolution Neural Network algorithm, face mask has been recognized. For body temperature, LM35 temperature sensor is used. This system undergoes data pre-processing, training, detecting face mask and temperature. By using MobileNet V2, Frontcascadexml file, tensor flow and keras software library the face mask is detected. Then, the result is send to the Arduino microcontroller and displays that the face mask is detected or not by using LED. If the mask is not weared by the person, buzzer will be alarmed. Similar procedure was carried out for monitoring the temperature of a person using LM35 temperature sensor. The main advantages of MobileNet V2 are higher performance, lesser network size and minimum number of parameter are required.
5	Sample certificate	**Online Certifications** 48 online certifications have been obtained by our IT students from some of the reputed online course platforms.

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119.

FUNDED PROJECTS
22 -23

தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

(Established by Government of Tamilnadu)

Directorate of Technical Education Campus, Chennai – 600 025.

Ph : 044-22301428, www.tanscst.nic.in

Dr.R.SRINIVASAN, M.Sc., Ph.D., F.I.C.S., M.A.C.S (USA)

Member Secretary

Lr.No.TNSCST/SPS/BS/2022-2023

St. JOSEPH'S COLLEGE OF ENGINEERING (AN AUTONOMOUS INSTITUTION)

0 9 MAR 2023

CHENNAI - 600 119.

03.03.2023

To
The Principal
St.Joseph's College of Engineering,
OMR, Semmancheri,
Chennai - 600 119

Sir/Madam,

Sub: TNSCST – Student Project Scheme – 2022-2023 – approval intimation–grant release- reg.

With respect to the above scheme, the list of projects approved by the State Council is enclosed along with terms and conditions. You are requested to adhere to terms and conditions such as submission of UC and Seminar Paper on Time.

1.	Ms .S.P.Vedavalli, Assistant Professor, Department of ECE, St.Joseph's College of Engg., Chennai-600 119	Non-isolated dc-dc power converter with high grain for ev applications	N.Vaidhyanathan, K.Vigneshwaran,	EEE-1998	The Principal	Rs 7500/-
2.	Ms.K.Deepa, Assistant Prof., Department of IT St.Joseph's College of Engg., Chennai-600 119	Deep learning based cyclone intensity estimation using insat-3D IR imagery	Dharshini.N, Jane Ann Elson,	CSE-1728	The Principal	Rs 7500/-
3.	Ms.Preethy.K.R. Assistant Professor, Department of Biotechnology, St.Joseph's College of Engg., Chennai-600 119	Synthesis of reduced graphene oxide using modified hummer's method for cancer treatment	Theebika B, Gayathri S,	MS-0755	The Principal	Rs 7500/-

Dr. VADDI SESHAGIRI RAO, M.E., M.B.A., Ph.D.
PRINCIPAL
St. JOSEPH'S COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION)
OLD MAMALLAPURAM ROAD, CHENNAI-600 119.