



SCHOOL OF INFORMATION TECHNOLOGY & ENGINEERING (SITE)



THE OFFICIAL NEWSLETTER
JANUARY - MARCH 2022

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"Power comes not from knowledge kept but from knowledge shared" - Bill Gates

ABOUT THE SCHOOL



VISION

- To be a center of excellence in education and research in Information Technology, producing global leaders for the improvement of the society.

MISSION

- To provide sound fundamentals and advances in Information Technology, Software Engineering, Smart Computing & Computer Applications
- To create ethically strong leaders and trend setters for the next generation.
- To pursue outstanding and impactful research to achieve sustainable growth for the benefit of humanity

DEAN'S MESSAGE



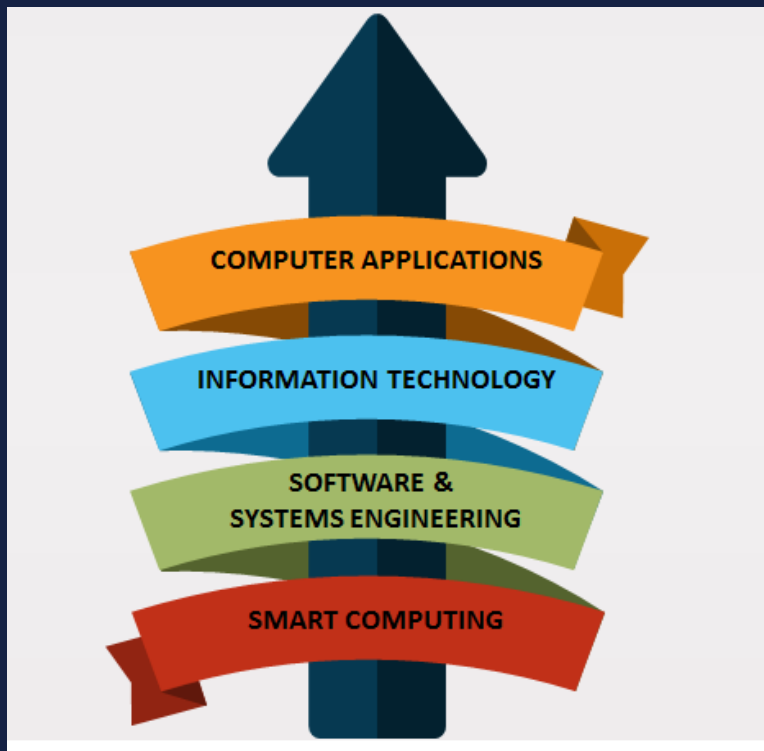
*Dr. Sumathy S
Professor & Dean
School of Information Technology & Engineering
Vellore Institute of Technology, Vellore
Email: dean.site@vit.ac.in*

Greetings to the readers of the first newsletter issue of the School of Information Technology & Engineering. As citizens of an era of industrial revolution visualizing constant innovations, we aim to radically change every aspect of our lives from better to the best. The challenge is not only to meet the ever evolving human needs but to strike a perfect balance between demand and supply, ensuring that the natural concerns are preserved.

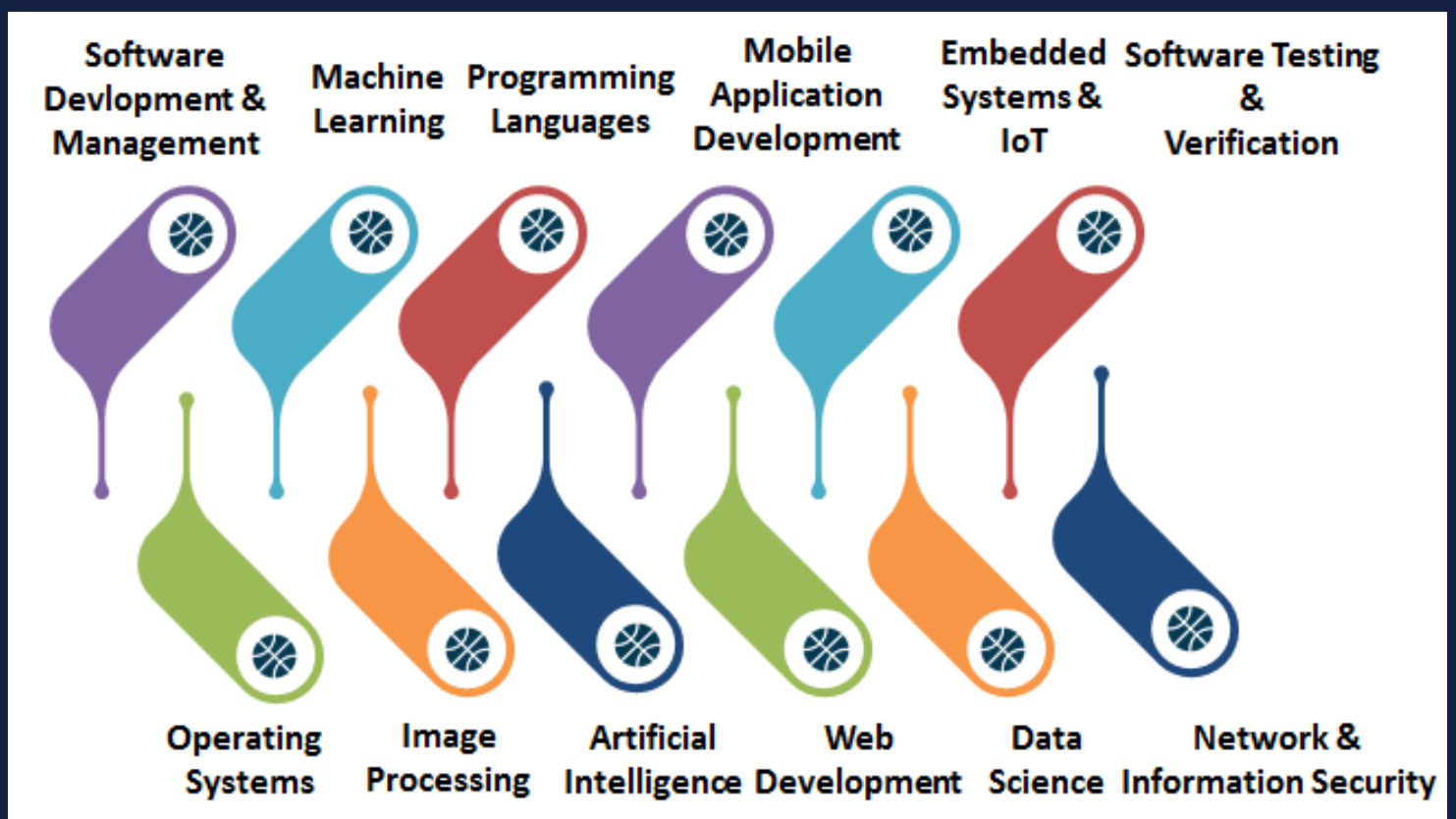
We aim to resolve problems at the connexion of information, technology and the society at large. The engineering education rendered by the school along with additional in-house academic, non-academic and industrial exposure enables students to understand information technology concepts with utmost clarity and foster to take enhanced decisions at the organization levels in future. The knowledge gained also helps to identify innovative technological and research opportunities and implement them in real time products catering to meet and enhance quality of human life. The school imparts the knowledge and skills required for the students to become competent and excel in the broader domain of Information Technology and allied disciplines holistically.

Wish you a very happy reading, Thank You!!!

DEPARTMENTS & PROGRAMMES



LABORATORIES



STUDENTS' ACHIEVEMENTS



Mr. Sarthak Gupta & Ms. Varalika Mahajan, 1st position among 100+ Startups participation across the globe, UpStart business competition, E'Summit'21, IIT Kanpur January 2022.



Ms. Poorna Sri. Y has represented Tamil Nadu and won the Silver Medal in the National Weightlifting Championship held at KIIT, Bhubaneswar from 24.03.22 to 27.03.22

*"The value of College Education is not the learning of many facts but the training of the mind to think" -
Albert Einstein*

TOP STUDENT PLACEMENTS (2022)

(B.Tech, M.Tech (5 Yrs Integrated), MCA)



Student Name	Programme	Company
<ul style="list-style-type: none">HEMANT CHAUHANVINAYAK JOSHIHARSHITA BHALLAARPIT AGARWAL	B.Tech (IT)	
<ul style="list-style-type: none">LAKHAN NAD	B.Tech (IT)	
<ul style="list-style-type: none">SATYANAND PRASAD	B.Tech (IT)	
<ul style="list-style-type: none">JAYATI TRIPATHISHREYA CHATTERJEE	B.Tech (IT)	
<ul style="list-style-type: none">LAKHAN NADSNEHANSH SIDDHARTHMANDEEP SINGHVARALIKA MAHAJAN	B.Tech (IT)	
<ul style="list-style-type: none">PRANAV BANSAL	B.Tech (IT)	
<ul style="list-style-type: none">MANYAPANKAJ SHUKLA	B.Tech (IT)	
<ul style="list-style-type: none">SRIJAN TRIPATHI	B.Tech (IT)	
<ul style="list-style-type: none">ISHIKA DUBEYSPARSH JAIN	B.Tech (IT)	
<ul style="list-style-type: none">S MOHAMED FIAZ	M.TECH-5YEARS INTEGRATED	

"A Winner is a Dreamer who never gives up" - Nelson Mandela

TOP STUDENT PLACEMENTS (2022)

(B.Tech, M.Tech (5 Yrs Integrated), MCA)



Student Name	Programme	Company
• AMAN KUVERA	M.TECH-5YEARS INTEGRATED	ZENOTI
• T.M SAILESH KUMAR	M.TECH-5YEARS INTEGRATED	SAMSUNG
• KOTHA ANAND ASISH KUMAR	M.TECH-5YEARS INTEGRATED	OLX India
• ARKA SEALS • SHUBHAM RAJ	M.C.A	genpact
• DHARMENDRA PRASAD	M.C.A	Deloitte.
• KUMAR SACHIN • AKASH BHADANI	M.C.A	Cognizant
• DEVANSH TIWARI • KRITIKA SAINI • AMIT KASHYAP • GAURAV BHATIA • ASHMITA MISHRA	M.C.A	CHUBB®
• SAI NATAKALA • VENKATA SAI RAGHURAM GUPTA SATRASALA • EDARA VAISHNAV CHOWDHARY	M.TECH-5YEARS INTEGRATED	stryker
• SIDDAMALLIREDDYGARI DHEEKSHITHA	M.TECH-5YEARS INTEGRATED	pwc

"Strive not to be a success, but rather to be of value" - Albert Einstein

STUDENT PUBLICATIONS

(UG & PG Level)



Jha, Vijayendra Vishal, Kanushree Sandeep Jajoo, B. K. Tripathy, and Saleem Durai. "An improved monarch butterfly optimization based multivariate fuzzy time series approach for forecasting GDP of India." *Evolutionary Intelligence*, (2022), Impact Factor: 2.33

Rizvi, Kazim, Bhavisha J. Dholakia, Aditya Kaushik, and Aswani Kumar Cherukuri. "An End-to-End Video Content Encryption Module for HLS Video Streaming." In *Advancing Smarter and More Secure Industrial Applications Using AI, IoT, and Blockchain Technology*, IGI Global, (2022)

Smriti, Manya, Shruti Varsha Venkatraman, Aashish Raj, Vaishnavi Raj Shukla, and Aswani Kumar Aswani Cherukuri. "Secure File Storage in Cloud Computing Using a Modified Cryptography Algorithm." In *Advancing Smarter and More Secure Industrial Applications Using AI, IoT, and Blockchain Technology*, IGI Global, (2022)

Gupta, Sanskar, Aswani Kumar Cherukuri, Chandra Mouliswaran Subramanian, and Amir Ahmad. "Comparison, Analysis and Analogy of Biological and Computer Viruses." In *Intelligent Interactive Multimedia Systems for e-Healthcare Applications*, Springer, Singapore, (2022)

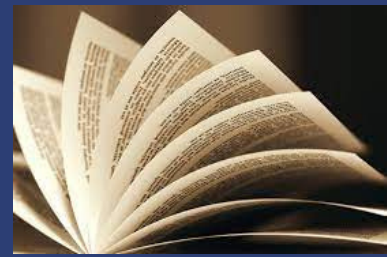
Sujatha, R., B. Venkata Siva Krishna, Jyotir Moy Chatterjee, P. Rahul Naidu, N. Z. Jhanjhi, Challa Charita, Eza Nerin Mariya, and Mohammed Baz. "Prediction of suitable candidates for covid-19 vaccination." *Intelligent Automation and Soft Computing* (2022), Impact Factor: 1.647

Jha, Vijayendra Vishal, Kanushree Sandeep Jajoo, B. K. Tripathy, and Saleem Durai. "An improved monarch butterfly optimization based multivariate fuzzy time series approach for forecasting GDP of India." *Evolutionary Intelligence*, (2022), Impact Factor: 2.33

Agrawal, Shaashwat, Sagnik Sarkar, Mamoun Alazab, Praveen Kumar Reddy Maddikunta, Thippa Reddy Gadekallu, and Quoc-Viet Pham. "Genetic CFL: Hyperparameter Optimization in Clustered Federated Learning." *Computational Intelligence and Neuroscience 2021* (2021), Impact Factor: 3.633

STUDENT PUBLICATIONS

(UG & PG Level)



Agrawal, Shaashwat, Sagnik Sarkar, Gautam Srivastava, Praveen Kumar Reddy Maddikunta, and Thippa Reddy Gadekallu. "Genetically optimized prediction of remaining useful life." *Sustainable Computing: Informatics and Systems* 31 (2021), Impact Factor: 4.028

Gadekallu, Thippa Reddy, M. K. Manoj, Neeraj Kumar, Saqib Hakak, and Sweta Bhattacharya. "Blockchain-Based Attack Detection on Machine Learning Algorithms for IoT-Based e-Health Applications." *IEEE Internet of Things Magazine* 4, no. 3 (2021)

Gayakwad, Ekansh, J. Prabhu, R. Vijay Anand, and M. Sandeep Kumar. "Training Time Reduction in Transfer Learning for a Similar Dataset Using Deep Learning." In *Intelligent Data Engineering and Analytics*, Springer, Singapore, (2021)

Wahi, Varun, Aswani Kumar Cherukuri, Kathiravan Srinivasan, and Annapurna Jonnalagadda. "CryptoCert: A Blockchain-Based Academic Credential System." In *Recent Trends in Blockchain for Information Systems Security and Privacy*, CRC Press, (2021)

Cherukuri, Aswani Kumar, Ikram Sumaiya Thaseen, Gang Li, Xiao Liu, Vinamra Das, and Aditya Raj. "Integrity of IoT Network Flow Records in Encrypted Traffic Analytics." *Security and Privacy in the Internet of Things: Architectures, Techniques, and Applications*, (2021)

Ikram, Sumaiya Thaseen, Aswani Kumar Cherukuri, Babu Poorva, Pamidi Sai Ushasree, Yishuo Zhang, Xiao Liu, and Gang Li. "Anomaly detection using XGBoost ensemble of deep neural network models." *Cybernetics and Information Technologies*, (2021)

Alqaheri, Hameed, R. Sujatha, Jyotir Moy Chatterjee, Sridharan Shooriya, Sai Aswin J. Kumar, and Neha Satish. "Toward an Autonomous Incubation System for Monitoring Premature Infants." *STUDIES IN INFORMATICS AND CONTROL* 30, no. 4 (2021), Impact Factor: 1.649

Ramaneswaran, S., Kathiravan Srinivasan, P. M. Vincent, and Chuan-Yu Chang. "Hybrid inception v3 XGBoost model for acute lymphoblastic leukemia classification." *Computational and Mathematical Methods in Medicine* 2021 (2021), Impact Factor: 2.238

STUDENT PUBLICATIONS

(UG & PG Level)



Koneru, Naveena. "Deep Learning-based Automated Recommendation Systems: A Systematic Review and Trends." Turkish Journal of Computer and Mathematics Education (TURCOMAT) 12, (2021)

Agrawal, Anmol, B. K. Tripathy, and Ramkumar Thirunavukarasu. "An Improved Fuzzy Adaptive Firefly Algorithm-Based Hybrid Clustering Algorithms." International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, (2021), Impact Factor: 1.51

Singhania, Udit, Balakrushna Tripathy, Mohammad Kamrul Hasan, Noble C. Anumbe, Dabiah Alboaneen, Fatima Rayan Awad Ahmed, Thowiba E. Ahmed, and Manasik M. Mohamed Nour. "A Predictive and Preventive Model for Onset of Alzheimer's Disease." Frontiers in Public Health, (2021), Impact Factor: 3.7

Jain, Satin, Udit Singhania, Balakrushna Tripathy, Emad Abouel Nasr, Mohamed K. Aboudaif, and Ali K. Kamrani. "Deep Learning-Based Transfer Learning for Classification of Skin Cancer." Sensors 21, (2021), Impact Factor: 4.35

Chitturi, Arun Krishna, C. Ranichandra, and N. C. Senthilkumar. "Student Performance Analysis in Spark." In International Conference on Innovative Computing and Cutting-edge Technologies, pp. Springer, Cham, (2020)

Mahto, Krishna Kumar, and C. Ranichandra. "Logistic Regression on Hadoop Using PySpark." In International Conference on Innovations in Bio-Inspired Computing and Applications, Springer, Cham, (2019)

DISTINGUISHED ALUMNI



Saikiran Chanadha (MS-SE) (2008- 2013) CEO & CoFounder of Typeset
Completed fellowship at Stanford Global School of Business

- Featured in Forbes Magazine
- Invited for project evaluation



Narendran Parivallal (MS-SE) (2007-2012)
Co-Founder at Kencil,

- End to end technology for schools,
- Covering 250+ schools globally



Ajay Viswanathan (B.Tech-IT) (2011- 2015) Founder & CEO of Superfect Solutions

- Mentor & Equity Holder- Webkites
- Interactive Media, Chennai
- Invited Member of BoS (SITE)

"Innovation distinguishes between a leader and a follower" - Steve Jobs

ALUMNI SPEAKS



Vivek Gopalasetty, Data Analyst at BlackRock Inc

Academic courses at VIT are well designed with theory and project components which enabled me to learn and apply them to a project embedding practical knowledge and skills. Teacher's expertise in subject and feedback helped me to get placed in BlackRock Inc.



Sujana Bora, Software Engineer at Bank of America

There are many instances of how my time at the VIT set me on a path of personal and professional fulfillment. Emotional intelligence and skill development together have proven helpful in my role as a Software Engineer, working with teams across the globe.



Namrata Biswas, Software Developer at Oracle IDC Pvt. Ltd.

SITE has been phenomenal in setting my career path. The structured curriculum, highly experienced faculties, innovation centers and early exposures to the industry helped me build a strong technical profile. It was a holistic and an enthralling experience



Tarun Sharma, Data Analyst at Walmart Inc.

The curriculum followed by SITE school is extremely competitive and is designed to align with the current demand of industries. All the teachers, mentors and the connections you make here are lifelong and catapults your career immensely.

SCHOLAR SPEAKS



I, Gokul Yenduri is currently pursuing PhD as an internal full-time research scholar at school of information technology and engineering in Vellore institute of technology. I am conducting extensive research in the field of Software Maintainability integrated with Machine Learning techniques. Apart from my core PhD research area, I have explored various other dimensions of research namely The Metaverse, Explainable AI, Federated Learning and various Optimization and Heuristic Techniques. VIT has helped him come closer to his dream with the support from my research supervisor, who has inspired me to be consistent and committed towards academic research. I have published one SCI-indexed article and completed one book chapter under reputed publication house. I give the major credit of my research output to the conducive academic environment of VIT. My ambition is to be a recognized and impactful researcher contributing towards the benefit of the society.



I, Vinay Maddiralla is currently pursuing PhD as an internal full-time research scholar at school of information technology and engineering in Vellore institute of technology. My research interest lies in the area of IoT and Deep Learning. As part of my initial training, I have participated in various workshops relevant to Big Data, AI, ML, and IoT. The guidance and support from my research supervisor has helped me initiate my research work with optimum enthusiasm and motivation. VIT provides numerous opportunities in nurturing research interests among students which propel them to venture into active research careers.



I, Pawan Hegde is currently pursuing research on “Lightweight Blockchain technology for IoT devices”, in the School of Information Technology and Engineering, Vellore Institute of Technology. The expertise and support of my guide has helped me explore my research interests. The constant motivation from my guide has channelized my effort to publish in journal and book chapters. I have immensely been inspired by the positive research energy at VIT Vellore. The University has provided a great environment, where we have regular engagements with researchers across various disciplines through discussions and seminars. It truly trains and opens up one’s mind to explore different ideas and opportunities.

"Design is not how it looks like and feels like . Design is how it works" - Steve Jobs

SPONSORED PROJECTS



Project Title	Funding Agency	Budget (INR)
DIVERSASIA – Embracing diversity in ASIA through the adoption of inclusive open practices	Erasmus+ EU Programme	72,79,200
Weather based Maize Yield Forecast in Saudi Arabia using Statistical Analysis and Machine Learning	King Faisal University	5,82,579
Intelligent anomaly detection system for encrypted network traffic	SPARC	62,95,953
A Big Data Processing Framework to Model Vector Borne Disease Dynamics Based on the Seasonal Changes	ISRO	15,66,000

TOTAL - 1,57,23,732 INR

BROAD AREA OF RESEARCH

Machine Learning

- Artificial Intelligence
- Evolutionary Computing
- Deep Learning
- Natural Language Processing
- Cognitive Computing
- Soft Computing

Data Engineering

- Big Data Analytics
- Data Visualization
- Business Intelligence
- Data Mining
- Multimodal Data Analytics

Image Processing

- Computer Graphics
- Augmented Reality
- Virtual Reality
- Recognition
- Robotics and Computer Vision
- Video Analytics
- Remote Sensing & GIS



Cyber Security

- Privacy and trust management
- Intrusion Detection/Prevention Systems
- Cloud and IoT Security
- Block Chain & Distributed Ledger Technologies
- Computer forensics

Contemporary Computing

- Online Social Networks
- Recommender Systems
- Internet of Things
- E- Commerce and M- Commerce
- Healthcare Analytics
- Intelligent Transportation Systems

"Knowledge with action converts adversity into prosperity" - Dr. A P J Abdul Kalam

FACULTY PUBLICATIONS (JAN - FEB 2022)

Author (s)	Title	Journal	Impact Factor
Jemmali M., Denden M., Boulila W., Jhaveri R.H., Srivastava G., Gadekallu T.R.	A Novel Model Based on Window-Pass Preferences for Data-Emergency-Aware Scheduling in Computer Networks	IEEE Transactions on Industrial Informatics	10.215
Dohare I., Singh K., Ahmadian A., Mohan S., Reddy M P.K.	Certificateless Aggregated Signcryption Scheme for Cloud-Fog Centric Industry 4.0	IEEE Transactions on Industrial Informatics	10.215
Ramu S.P., Boopalan P., Pham Q.-V., Maddikunta P.K.R., Huynh-The T., Alazab M., Nguyen T.T., Gadekallu T.R.	Federated learning enabled digital twins for smart cities: Concepts, recent advances, and future directions	Sustainable Cities and Society	7.587
Deepa N., Pham Q.-V., Nguyen D.C., Bhattacharya S., Prabadevi B., Gadekallu T.R., Maddikunta P.K.R., Fang F., Pathirana P.N.	A survey on blockchain for big data: Approaches, opportunities, and future directions	Future Generation Computer Systems	7.187
Pan X., Cai X., Song K., Baker T., Gadekallu T.R., Yuan X.	Location Recommendation Based on Mobility Graph With Individual and Group Influences	IEEE Transactions on Intelligent Transportation Systems	6.492
Ganesh N.S., Maheswari G.U., Srinivas T., Reddy B.V.	Exergoeconomic Analysis of a Novel Zeotropic Mixture Power System	International Journal of Precision Engineering and Manufacturing - Green Technology	5.671
Pandiyan S., Navaneethan C., Vijayan R., Gunasekaran G., Khan K.Y., Guo Y.	Evaluation of drought using satellite solar-induced chlorophyll fluorescence during crop development stage over Xinjiang, China	Measurement: Journal of the International Measurement Confederation	3.927
Iyapparaja M., Alshammari N.K., Kumar M.S., Krishnan S.S.R., Chowdhary C.L.	Efficient resource allocation in fog computing using QTCS model	Computers, Materials and Continua	3.772
Sivashankari R., Sudha M., Hasan M.K., Saeed R.A., Alsuhibany S.A., Abdel-Khalek S.	An Empirical Model to Predict the Diabetic Positive Using Stacked Ensemble Approach	Frontiers in Public Health	3.709
Khan S., Hakak S., Deepa N., Prabadevi B., Dev K., Trelova S.	Detecting COVID-19-Related Fake News Using Feature Extraction	Frontiers in Public Health	3.709
Akshay Kumaar M., Samiayya D., Vincent P.M.D.R., Srinivasan K., Chang C.-Y., Ganesh H.	A Hybrid Framework for Intrusion Detection in Healthcare Systems Using Deep Learning	Frontiers in Public Health	3.709

FACULTY PUBLICATIONS (JAN - FEB 2022)

Authors	Paper Title	Journal	Impact Factor
Gopikumar S., Banu J.R., Harold Robinson Y., Raja S., Vimal S., Pelusi D., Kaliappan M.	Geo Spatial Based Real Time Monitoring on Eutrophic Evaluation of Porunai River Basin for Pollution Risk Assessment	European Journal of Remote Sensing	3.647
Agrawal S., Chowdhuri A., Sarkar S., Selvanambi R., Gadekallu T.R.	Temporal Weighted Averaging for Asynchronous Federated Intrusion Detection Systems	Computational Intelligence and Neuroscience	3.633
Bal P.K., Mohapatra S.K., Das T.K., Srinivasan K., Hu Y.-C.	A Joint Resource Allocation, Security with Efficient Task Scheduling in Cloud Computing Using Hybrid Machine Learning Techniques	Sensors	3.576
Arikumar K.S., Prathiba S.B., Alazab M., Gadekallu T.R., Pandya S., Khan J.M., Moorthy R.S.	FL-PMI: Federated Learning-Based Person Movement Identification through Wearable Devices in Smart Healthcare Systems	Sensors	3.576
Cao X.-Z., Gadekallu T.R.	Construction of Sports Safety Information Mining Platform Based on Multimedia Data Sharing Technology	Mobile Networks and Applications	3.426
Javed A.R., Ahmed W., Alazab M., Jalil Z., Kifayat K., Gadekallu T.R.	A Comprehensive Survey on Computer Forensics: State-of-the-art, Tools, Techniques, Challenges, and Future Directions	IEEE Access	3.367
Shafi J., Obaidat M.S., Krishna P.V., Sadoun B., Pounambal M., Gitanjali J.	Prediction of heart abnormalities using deep learning model and wearable devices in smart health homes	Multimedia Tools and Applications	2.757
Nagarajan R., Thirunavukarasu R.	A neuro-fuzzy based healthcare framework for disease analysis and prediction	Multimedia Tools and Applications	2.757
Gupta V., Jain N., Garg H., Jhunthra S., Mohan S., Omar A.H., Ahmadian A.	Predicting attributes based movie success through ensemble machine learning	Multimedia Tools and Applications	2.757
Bhuvaneshwari P., Rao A.N., Robinson Y.H., Thippeswamy M.N.	Sentiment analysis for user reviews using Bi-LSTM self-attention based CNN model	Multimedia Tools and Applications	2.757
Agilandeewari L., Prabukumar M., Radhesyam V., Phaneendra K.L.N.B., Farhan A.	Crop Classification for Agricultural Applications in Hyperspectral Remote Sensing Images	Applied Sciences (Switzerland)	2.679
Balamurugan N.M., Mohan S., Adimoolam M., John A., reddy G T., Wang W.	DOA tracking for seamless connectivity in beamformed IoT-based drones	Computer Standards and Interfaces	2.487

FACULTY PUBLICATIONS (JAN - FEB 2022)

Authors	Paper Title	Journal	Impact Factor
Vinoth D., Prabhavathy P.	An intelligent machine learning-based sarcasm detection and classification model on social networks	Journal of Supercomputing	2.474
Rajendran D., Prasanna S.	Stealth assessment strategy in distributed systems using optimal deep learning with game based learning	Journal of Supercomputing	2.474
Ikram S.T., Priya V., Anbarasu B., Cheng X., Ghalib M.R., Shankar A.	Prediction of IIoT traffic using a modified whale optimization approach integrated with random forest classifier	Journal of Supercomputing	2.474
Narayanasamy S.K., Srinivasan K., Hu Y.-C.,	A Contemporary Review on Utilizing Semantic Web Technologies in Healthcare, Virtual Communities, and Ontology-Based Information Processing Systems	Electronics (Switzerland)	2.397
Rajab K., Kamalov F., Cherukuri A.K.	Forecasting COVID-19: Vector Autoregression-Based Model	Arabian Journal for Science and Engineering	2.334
Karthikraja C., Senthilkumar J., Hariharan R., Usha Devi G., Suresh Y., Mohanraj V.	An empirical intrusion detection system based on XGBoost and bidirectional long- short term model for 5G and other telecommunication technologies	Computational Intelligence	2.33
Kogilavani S.V., Prabhu J., Sandhiya R., Kumar M.S., Subramaniam U., Karthick A., Muhibbullah M., Imam S.B.S.	COVID-19 Detection Based on Lung CT Scan Using Deep Learning Techniques	Computational and Mathematical Methods in Medicine	2.238
Padma T., Shantharajah S.P., Ramadoss P.	Hybrid Fuzzy AHP and Fuzzy TOPSIS Decision Model for Aquaculture Species Selection	International Journal of Information Technology and Decision Making	2.22
Govardhan P., Srinivasan P.	Multilevel controller-assisted intrinsically modified ant colony optimization heuristic- based load-balancing model for mega cloud infrastructures	International Journal of Communication Systems	2.047
Sujatha R., Chatterjee J.M., Priyadarshini I., Hassanien A.E., Mousa A.A.A., Alghamdi S.M.	Self-organizing Maps and Bayesian Regularized Neural Network for Analyzing Gasoline and Diesel Price Drifts	International Journal of Computational Intelligence Systems	1.736

FACULTY PUBLICATIONS (JAN - FEB 2022)

Author (s)	Title	Journal	Impact Factor
Alqaheri H., Sujatha R., Chatterjee J.M., Shooriya S., Kumar S.A., Satish N.	Toward an Autonomous Incubation System for Monitoring Premature Infants	Studies in Informatics and Control	1.649
Varun Chand H., Karthikeyan J.	CNN based driver drowsiness detection system using emotion analysis	Intelligent Automation and Soft Computing	1.647
Sujatha R., Venkata Siva Krishna B., Chatterjee J.M., Naidu P.R., Jhanjhi N.Z., Charita C., Mariya E.N., Baz M.	Prediction of suitable candidates for COVID-19 vaccination	Intelligent Automation and Soft Computing	1.647
Sujatha R., Chatterjee J.M., Jhanjhi N.Z., Tabbakh T.A., Almusaylim Z.A.	Heart failure patient survival analysis with multi kernel support vector machine	Intelligent Automation and Soft Computing	1.647
Muruganantham P., Balakrishnan S.M.	Attention Aware Deep Learning Model for Wireless Capsule Endoscopy Lesion Classification and Localization	Journal of Medical and Biological Engineering	1.553
Gayathri A., Prabu A.V., Rajasoundaran S., Routray S., Narayanasamy P., Kumar N., Qi Y.	Cooperative and feedback based authentic routing protocol for energy efficient IoT systems	Concurrency and Computation: Practice and Experience	1.536
Manoharan P., Vaddi R.	Wavelet enabled ranking and clustering-based band selection and three-dimensional spatial feature extraction for hyperspectral remote sensing image classification	Journal of Applied Remote Sensing	1.53
Dinesh Kumar R., Golden Julie E., Harold Robinson Y., Vimal S., Dhiman G., Veerasamy M.	Deep Convolutional Nets Learning Classification for Artistic Style Transfer	Scientific Programming	1.025

FACULTY PATENTS

Title of the patent	Names of Inventors
Driver Assistance System for Blind Turns	Dr. Ganesan K
Educational Toy for Teaching Basic Malayalam Language	Dr Rajeswari C & Faculty Members from SMEC

"A true sign of intelligence is not knowledge but innovation" - Albert Einstein

"Top 2% Scientists in the World" by a recent survey conducted by Stanford University



Dr. Ch. Aswani Kumar is a Professor of School of Information Technology and Engineering, Vellore Institute of Technology, Vellore, India. His research interests include Machine Learning, Network and Information Security. He has published almost 130 refereed research papers in various national, international journals and conferences. He received Young Scientist Fellowship from Tamil Nadu State Council for Science and Technology for his research at TIFR, Bombay during the year 2004. He received The New Indian Express award for inspiring young teachers 40 under forty. Dr. Aswani Kumar was principal investigator to major research projects sponsored by the DST, Govt. of India, during 2006 - 2008 and National Board of Higher Mathematics, Dept of Atomic Energy, Govt. of India during 2011-13. He is presently working on a research project funded by MHRD on network anomaly detection. He expresses his sincere gratitude to the management and authorities for providing research ambience, support and encouragement. He also thanks all his scholars, students, collaborators and grant agencies for their support.



Dr. Thippa Reddy Gadekallu (Senior Member, IEEE) is an Associate Professor in School of Information Technology and Engineering, Vellore institute of Technology, Vellore, Tamil Nadu, India. He has more than 100 international/national publications in reputed journals and conferences. Currently, his areas of research include Machine Learning, Internet of Things, Deep Neural Networks, Blockchain, Computer Vision. He also acted as a guest editor in several reputed publishers like IEEE, Springer, Hindawi, MDPI. Some of his co-authored papers are among the most popular and most cited papers in journals like Electronics (MDPI), Computer Communications, (MDPI), Journal of Industrial Information Integration (Elsevier), Sustainable Cities and Society (Elsevier), IEEE Transactions on Network Science and Engineering, etc. He is an editor in several reputed publishers like Springer, Hindawi, Plosone, Scientific Reports (Nature), Wiley. He is currently working on application of federated learning for healthcare applications and prediction of heart diseases using the heart beat signals.



Dr. Chiranjil Lal Chowdhary is an Associate Professor in the School of Information Technology and Engineering at the Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, India. His primary research interest areas include computer vision, medical imaging and computational intelligence methods, medical imaging, machine learning, deep learning and IoT. He has significant numbers of peer reviewed journals and conference publication to his credit. He has also edited books under reputed publishers like IET, CRC, Springer and AAP and is a reviewer of some reputed journals such as IEEE Transactions, MDPI, Elsevier, Springer, Hindawi, IEEE Access. He is presently working on the development of healthcare applications using machine learning and computer vision techniques.



Dr. Chandra Segar Thirumalai is an Assistant Professor Senior in the School of Information Technology and Engineering at VIT, Vellore, His areas of expertise include Cryptographer, Cyber Security and Machine Learning. He has published almost 57 papers in reputed peer reviewed journals. He was awarded the "Best IEEE Paper Award" and also "Article of the Week" by the IEEE Access journal. He is an IEEE and IDES professional member. He is also a NASSCOM certified – Security Analyst, 2019. He received the VIT Most Active Researcher Award from 2011 to 2021. He is also a patent holder from India's Intellectual Property Rights (IPR). He is currently working on phishing and intrusion detection systems (IDS) for cybersecurity applications using Machine Learning Optimization techniques.

LECTURES ORGANIZED

(Jan - March 2022)



Machine Learning, Network and Blockchain Technology - 2022

Cyber Threats in Connected Space

Blockchain Technology in Health Care System

Software Configuration Management - An Industry Perspective

Software Metrics -An Industry Perspective

Applications of Software Security Mechanisms in Industry

The Management Control Framework in Information Systems Audit

Machine Learning, Network and its Applications

Talk on Heart

Software Testing - An Industry Perspective

Designing Test Cases from Industry Perspective

JDBC and Hybernate 3.x & Java Learning Center

LECTURES ORGANIZED

(Jan - March 2022)



Java Web Application using Servlet with JDBC connectivity

Placement Orientation Programme - An Interactive Session

Automation Testing in Robotics

Digital Forensic Investigations

Digital Forensic Tools and Techniques

The Blue Print of Software Architecture Industry Perspective of Software Architecture

Data Mining and Machine Learning - An Industry Perspective and Application Scenarios

Application of Object Oriented Analysis and Design in the Industry

Application of Object Oriented Programming Approaches in Software Development

Industry 4.0 - Trends and Challenges

Practical Challenges in Object - Oriented Design - An Industry Perspective

Software Reverse Engineering - An Industry Perspective

"If you have knowledge, let others light their candles in it" - Margaret Fuller

SITE - BU WEBINARS



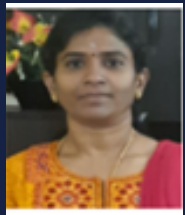
“VIT and SUNY, Binghamton, USA has a strong academic relationship that spans over a decade. We have multiple student exchange programs which include ITP, 3.5+1.5, and SAP. The research centre entitled “Centre for Autonomous Vehicle” was initiated in collaboration with SUNY Binghamton in 2019. In order to strengthen our research collaboration with SUNY Binghamton, School of Information Technology and Engineering, and International Relations, VIT Vellore has organized webinar series to facilitate common understanding of research in both the Universities, understand the latest research progress in the field thereby acting as a catalyst for future research collaborations.



“Code Reuse Attacks (CRAs)” by Dr. Aravind Prakash, Associate Professor, Department of Computer Science, Thomas J. Watson College of Engineering and Applied Science, Binghamton University, State University of New York, Binghamton



Secure Heterogeneous Systems” by Dr. Hoda Naghibijouybari, Assistant Professor, Department of Computer Science, Thomas J. Watson College of Engineering and Applied Science, Binghamton University, State University of New York, Binghamton



“Data Leakage Threats and Vulnerabilities - Blockchain based Authentication for Hadoop Clusters ” by Dr. Jeyanthi N, Associate Professor Senior, School of Information Technology and Engineering, VIT Vellore, India



“Encrypted Network Traffic Analysis using Deep Learning Techniques” by Dr. Sumaiya Thaseen I, Associate Professor, School of Information Technology and Engineering, VIT Vellore, India



“Cyber Resilience: Being Prepared for the Next Cyber Attack” by Dr. Sibi Chakkaravarthy Sethuraman, Associate Professor, School of Computer Science and Engineering, VIT AP, India



“Visualization based Machine learning approach for Large scale Malware Detection and Classification” by Dr. S. Geetha, Professor and Associate Dean, School of Computer Science and Engineering, VIT Chennai, India

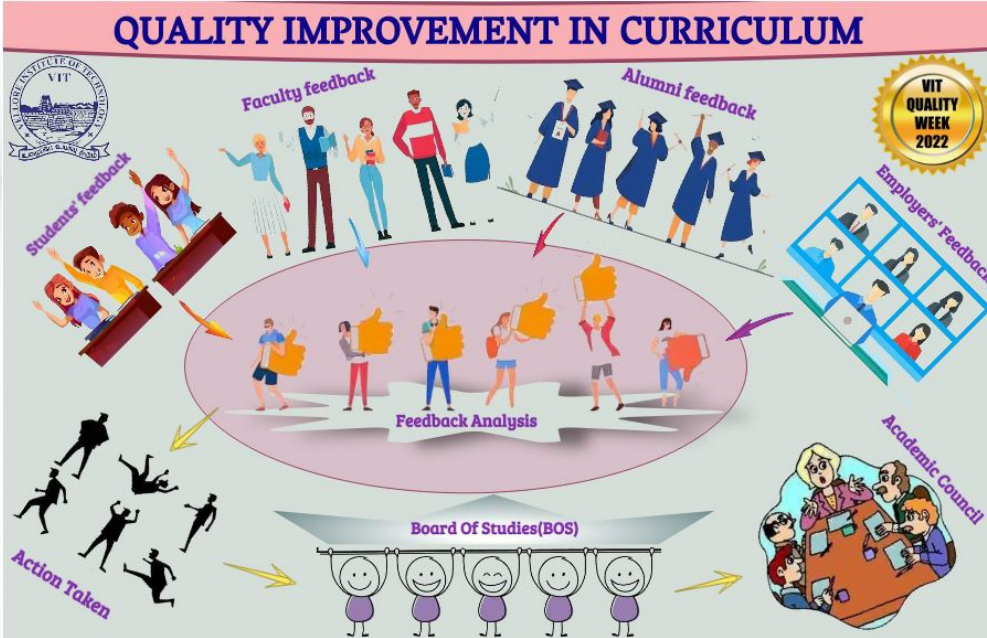


“A Kaleidoscope to Human Action Recognition using Computer Vision” by Dr. Tusar Kanti Mishra, Associate Professor, School of Computer Science and Engineering, VIT Vellore, India

“The art of teaching is the art of assisting discovery”- Mark Van Doren



VIT QUALITY WEEK EVENTS



21 Feb 2022

Poster on "Quality Improvement in Curriculum"



22 Feb 2022

Poster on "Quality Improvement of Course Outcome"



The comic strip consists of 10 panels (01-10) illustrating the process of course outcome improvement:

- 01:** Faculty members discuss the course outcome and its relevance to the program.
- 02:** Faculty members discuss the course outcome and its relevance to the program.
- 03:** Faculty members discuss the course outcome and its relevance to the program.
- 04:** Faculty members discuss the course outcome and its relevance to the program.
- 05:** Faculty members discuss the course outcome and its relevance to the program.
- 06:** Faculty members discuss the course outcome and its relevance to the program.
- 07:** Faculty members discuss the course outcome and its relevance to the program.
- 08:** Faculty members discuss the course outcome and its relevance to the program.
- 09:** Faculty members discuss the course outcome and its relevance to the program.
- 10:** Faculty members discuss the course outcome and its relevance to the program.

"Quality is everyone's responsibility" - Deming W Edwards



VIT QUALITY WEEK EVENTS



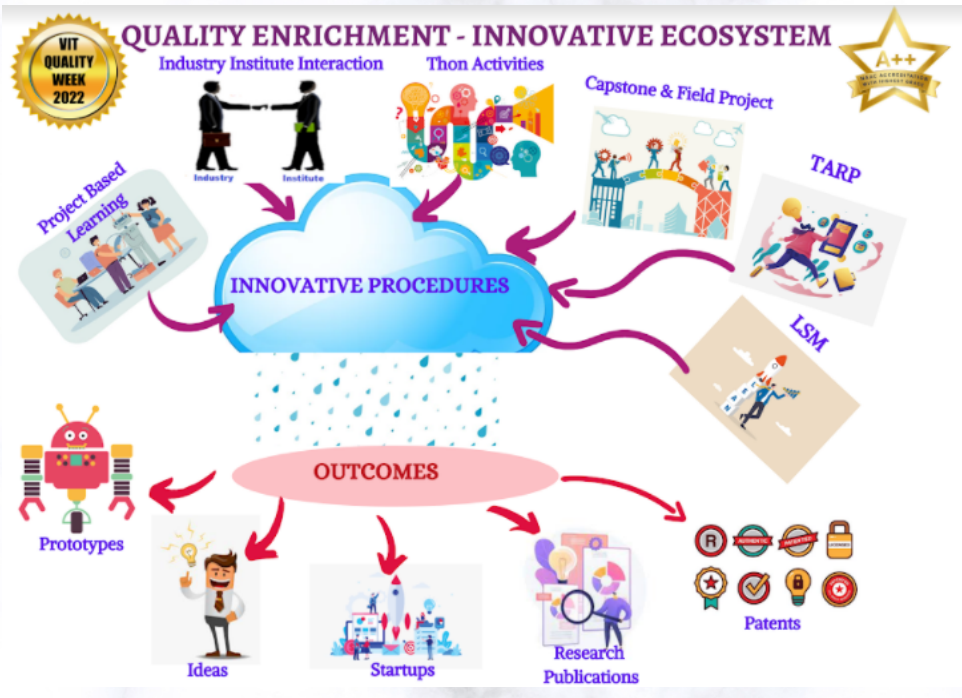
23 Feb
2022

Role Play on "Outcome Based Education"



24 Feb
2022

Poster on "Quality Enrichment for Innovative Ecosystem"



25 Feb
2022

Expert Talk on "Quality Enhancement in Research & Teaching"



"Quality is everyone's responsibility" - Deming W Edwards

WOMEN'S DAY EVENTS

School of Information Technology and Engineering

KALPANA CHAWLA
Women in Space

BOLD & CONFIDENT

KIRAN BEDI
Light of Women

KALPANA CHAWLA WAS THE FIRST INDIAN ORIGIN WOMAN TO GO TO SPACE IN 1997. SHE WAS CHOSEN TO BE A PART OF THE SPACE SHUTTLE COLUMBIA TEAM, WHICH FLEW TO SPACE IN 1997, AS A ROBOTIC SPECIALIST. IN 2003, KALPANA ALONG WITH 6 CREW MEMBERS DIED IN A TRAGIC ACCIDENT WHEN THE SPACE SHUTTLE COLUMBIA EXPLODED DURING ITS RETURN TO THE EARTH. THE UNIVERSITY OF TEXAS HAS DEDICATED A KALPANA CHAWLA MEMORIAL AT THE ARLINGTON COLLEGE OF ENGINEERING IN 2010. IN OCTOBER 2020, A COMMERCIAL CARGO SPACECRAFT NAMED AFTER CHAWLA IS LAUNCHED TO THE INTERNATIONAL SPACE STATION (ISS).

SHE BECAME A BEACON OF LIGHT FOR WOMEN ACROSS THE COUNTRY WHEN SHE WAS SELECTED AS THE FIRST WOMAN TO JOIN THE INDIAN POLICE SERVICE. OVER THE COURSE OF HER ILLUSTRIOUS CAREER SPANNING 35 YEARS, SHE WAS ABLE TO BRING IN NUMEROUS REFORMS, WHILE BEING INSTRUMENTAL IN MITIGATING THE NUMBER OF CRIMES AGAINST WOMEN. NOT JUST A NATIONAL SENSATION, KIRAN BEDI ALSO WENT ON TO ACHIEVE INTERNATIONAL ACCLAIM, WHEN SHE WAS APPOINTED AS A POLICE ADVISOR TO THE SECRETARY-GENERAL OF THE UN IN 2003. AFTER TAKING UP VOLUNTARY RESIGNATION, SHE HAS CONTINUED TO BE A LIVEWIRE IN THE PUBLIC DOMAIN, BEING AN AUDACIOUS WRITER AND DAUNTLESS SOCIAL ACTIVIST.

School of Information Technology & Engineering

Malala Yousafzai

Laxmi Agarwal
Optimistic & Perseverance

Malala's father ran a school for the girls in their village and always advocated woman education. However, when the Taliban's took over, education, music, entertainment was banned denying which harsh punishments were enforced. During 2008, when education was denied, Malala protested and raised her voice bravely supporting the right for girls to learn which made her a target. As a consequence, she was shot brutally by the Taliban's while returning from school. After prolonged struggle through months after surgery, Malala conquered death to recover and her voice became even stronger after this incident. She continued her education in UK which was their new home and also dedicated her life to fight for women's right to education. She graduated from the Oxford University in 2020. She was the recipient of Nobel Prize in 2012.

Her's is a story of courage and the will to survive and triumph over fate. Laxmi Agarwal was only 15-years-old when her stalker threw acid on her face, to disfigure her for life. The incident failed to break her, and instead only empowered her to take up the cause of acid attack survivors like herself. She went on to lead campaigns and petitions against the sale of the spurious liquid, following which, the Supreme Court of India ordained the regulation of the sale of acid by the central and state governments.



Posters & Discussion Session

on

"Work Life Balance - Women in Research"

School of Information Technology & Engineering

Avani Chaturvedi
Go-Getter!!

Dr. Ritu Karidhal was born in a middle class family in Lucknow. As a child she was extremely interested in space science and would collect newspaper cuttings of all space related information to keep herself updated with the activities of ISRO and NASA. She completed her B.Sc and M.Sc in Physics from University of Lucknow following which she got enrolled in the PhD program in the department of Physics. She also pursued her masters in aerospace engineering from IISc, Bangalore. Karidhal has worked in ISRO since 1997 and played key role in the development of Mangalyaan, the Mars Orbiter Mission being the deputy director of the mission. She also supervised Chandrayaan 2 mission as the mission director.

Avani was born on 27 October in 1993. Her father, Dinkar Chaturvedi, is an superintending engineer in Water Resource Department of Madhya Pradesh government and her mother is a home maker. She completed her schooling from Deolond, a small town in Shahdol district of Madhya Pradesh. Flight Lieutenant Avani Chaturvedi, a young Indian Air Force officer, became the first Indian woman fighter pilot to fly the 'MiG-21 Bison' solo. The MiG-21 Bison is known for its highest take-off and landing speed in the world at 340 kmph. Avani inspired many young women by making her mark in a field dominated by men.

School of Information Technology & Engineering

Seema Rao
Wonder Woman

Arunima Sinha
Fear Tackler • Braveheart

This pretty lady has achieved what no other Indian woman has, so far. Tearing down conventions, Seema Rao is the country's first woman commando trainer. Also qualified as a professional medical doctor, she possesses an MBA in crisis management. In partnership with her husband, Major Deepak Rao, she has trained over 15,000 soldiers in close quarter battle. To top it all, she is one of only 10 women in the world who are trained in Jeet Kune Do – a form of martial arts developed by Bruce Lee.

Arunima Sinha is the first female amputee to climb Mount Everest. She is also the first Indian amputee to climb the Everest. She was a national level volleyball player who was pushed from a running train by thieves in 2011 as she was resisting them. After meeting this accident, one of her legs had to be amputated below the knee. She is the world's first female amputee to scale Mount Everest, Mount Kilimanjaro, Mount Elbrus, Mount Kosciusko, Mount Aconcagua, Carstensz Pyramid and Mount Vinson.

School of Information Technology and Engineering

Mother Teresa
Saalumaraada Thimmakka
Caring

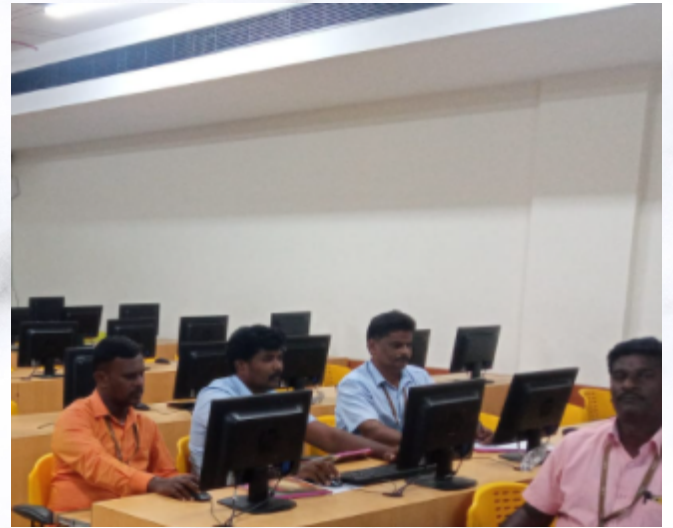
Known for her extensive work for the poor; Mother Teresa is the recipient of Bharat Ratna and first woman to win the Nobel Peace Prize in the year 1979. She dedicated her life working for the poor people of India. She received many awards in India and elsewhere in the world. Through her Missionary of Charities organization, she personally cared for thousands of sick and dying people in Calcutta. She also worked tirelessly 24/7 to eradicate poverty and improve lives around the world. She is frequently featured on any list of "women who changed the world."

A perfect example of the idea that age is not a limitation when it comes to goodwill; Saalumaraada Thimmakka is an environmental crusader even past the age of 100. She is renowned for her act of planting over 8,000 banyan (Ficus) trees over her lifetime. With no formal education, she worked as a labourer in a quarry. According to reports, she began planting trees because she and her husband were unable to bear children. Her acts got the attention of the international media, and the 105-year-old was named by the BBC in their list of the 100 most influential women in 2016.

"There is no limit to what we, as women, can accomplish" - Michelle Obama

STAFF EVENTS

TRAINING ON COMPUTER SKILLS



"Live as if you were to die tomorrow, Learn as if you were to live forever" - Mahatma Gandhi

The Editorial Team



Dr. Sweta Bhattacharya
Assistant Professor Senior (Grade I)
Department of Information Technology
School of Information Technology & Engineering
VIT- Vellore



Dr. Siva Rama Krishnan S
Assistant Professor Senior (Grade I)
Department of Software & Systems Engineering
School of Information Technology & Engineering
VIT- Vellore



Dr. Praveen Kumar Reddy M
Assistant Professor Senior (Grade I)
Department of Information Technology
School of Information Technology & Engineering
VIT- Vellore





*We would like to extend our heartfelt thanks to the
Dean, Associate Dean, HoDs, faculty members,
staffs, research scholars, alumni and student
community for their consistent support in publishing
the newsletter*

*“Reading is essential for those who seek to rise above the
ordinary.” - Jim Rohn*

Thank You!!!

