

PSG Centre for Academic Research and Excellence

INTERNATIONAL CONFERENCE ON SCIENCE, ENGINEERING AND
TECHNOLOGY PRACTICES FOR SUSTAINABLE DEVELOPMENT

ICSETPSD-23

17th and 18th November 2023

Session Schedule

Technically Co-Sponsored by

European Alliance for Innovation (EAI- CORE)

&

Collaboration with PSG Higher Education Institutions

Programme Schedule

Day 1 17.11.2023	Day 2 18.11.2023
Registration 8.00 am – 9.00 am	Key note address & Paper Session I 9.00 am – 10.30 am
Inaugural Function Climate Change in Health Dr.M..Dwarakanath, Former Director, DSTE and member Secretary, Puducherry pollution Control committee, Visiting faculty-DESM, BDU Venue: Medical College 9.00 am – 10.30 am	Break 10.30 am – 10.45 am
Break 10.30 am – 10.45 am	Key note address & Paper Session I 10.45 am – 12.45 pm
Key note address & Paper Session I 10.45 am – 12.45 pm	LUNCH 12.45 pm- 1.15 pm
LUNCH 12.45 pm- 1.15 pm	Key note address 1.15 pm – 2.30 pm
Key note address 1.15 pm – 2.30 pm	Break 2.30 pm – 2.45 pm
Break 2.30 pm – 2.45 pm	Key note address & Paper Session II 2.45 pm-3.30
Key note address & Paper Session II 2.45 pm-4.30pm	Valedictory Function 3.45 pm -4.45pm

PAPER SESSION 1: DAY 1

TRACK 1 CSE

Session Chair: Dr P Vijayakumar, Professor and Dean.

Date: 17th November 2023

Time: 10.45am – 12.45 pm

Venue: PSG Institute of Technology and Applied Research, Neelambur,
Coimbatore, Tamilnadu, India.

Online Link: <https://meet.google.com/fva-zsvh-kgf>

PAPER ID	AUTHOR(S)	PAPER TITLE
EC/302	P.Divya1 P.Yamini2	Employing U-NET and RBCNN to Build an Automatic Lung Cancer Segmentation and Classification System
EC/10	Anusuya K.V SuberusHeartrisha G, Praveenbabu R S	Optimizing Robotic Arm Precision With Real-Time Machine Vision Feedback
CSE/35	Feng Gu and Hongqi Chen	An Accounting Resource Sharing Platform Based on Cloud Computing Technology
CSE/37	JiangtaoGuo, Tianfu Ma, MaiheubaiXiaokaiti, Rui Yin and Lulu Liu	Research on the Identification System of Power Big Data Attribute Entities based on Artificial Intelligence Algorithm
CSE/44	Xin Hao and Cuihong Wu	Error Analysis and New Principle Research of Aspheric NC Forming
CSE/48	Bixia Wu	Reliability Analysis of Computer Communication Networks Taking into Account Bayesian Network Structure Learning Algorithm
CSE/56	QiyuanJie	Data Security Design in Computer Application Software Development from the Perspective of Information Security Environment
CSE/60	Haifeng Liao	Application of Big Data in Industry and Commerce Based on Data Mining Algorithm
CSE/80	Ke Wang	Construction of Software Engineering Resource Management System Based on Cloud Computing Technology

PAPER SESSION 1 Day 2

TRACK 1 CSE

Session Chair: Dr D Siva Kumar, Professor.

Date: 18th November 2023

Time: 10.45am – 12.45 pm

Venue: PSG Institute of Technology and Applied Research, Neelambur,
Coimbatore, Tamilnadu, India.

Online Link: <https://meet.google.com/fva-zsvh-kgf>

PAPER ID	AUTHOR(S)	PAPER TITLE
CSE/82	Yeping Gao	Risk Assessment of Atmospheric Pressure Storage Tank Groups Based on AST RBI
CSE/85	Shupeng Liang	Computer Visualization Modeling Based on Virtual Reality Technology
CSE/86	Lei Zhu and Huang He	First-principles Calculation and Mesoscopic Simulation of New Energy Battery Materials
CSE/92	Qingzhu Yu, Guoming Li and Xiaoliang Xu ²	Design of Ship Intelligent Monitoring System Based on Embedded System
CSE/94	Yingli Zhou, Guangpeng Li and Qi Wang	Design System of Refrigerator Drive Control Circuit Based on Deep Learning Algorithm
CSE/98	Yingli Zhou*, Qi Wang and Guangpeng Li	Exploration on Energy-saving Control Strategy for Data Center Refrigeration Stations Based on PID Control Algorithm
CSE/100	Zhuli Wei, and Yuankui Ma	Research on Integration Management of Big Data Application Precision Portrait Marketing Resources based on Cloud and Edge Collaborative Computing
CSE/101	Limin Yuan, Xi Wang, Yiran Zhai, Yuan Cao and Xiaonan Sun	Research on Provincial Power Grid Geographic Information System based on Web Network
CSE/105	Qing Zhang and Quan Sun	Construction of XR Musical Space based on Intelligent Technology

PAPER SESSION 1: DAY 1

TRACK 1 General Engineering

Session Chair: Dr. S. Kanthalakshmi, Professor

Co-Chair: Dr. J. Baskaran, Professor

Date: 17th November 2023

Time: 10.45am – 12.45 pm

VENUE: PSG Centre for Academic Research and Excellent, Peelamedu,
Coimbatore, Tamilnadu, India. -Room No:202.

Online link: <https://meet.google.com/zzx-pyzn-jhs>

PAPER ID	AUTHOR(S)	PAPER TITLE
GE/13	ThirumalaiKumaran S, Kalusuraman G	Compression Properties of 3D Printed Honeycomb and Re-Entrant Sandwich Core Materials
GE/14	Harshavardhne B	Calibration of Comprehensive Assessment Battery for Teachers
CSE/28	ManimegalaiRajkumar, SrivatsanSanthanam, PriyamPandia, SunithaNandhini A	Energy Efficient and Sustainable Coding Practices
CSE/30	ManimegalaiRajkumar, VishnuCharan V, Venkateshwaran M	Evolution of Software Systems from Incubation to Full Scale
GE/18	SwethaJayalakshmi J, BanumathySundararaman	Pre-consumer textile waste- A study and design development
GE/601	Swetha Jayalakshmi1 J , Banumathy Sundararaman2	Pre-consumer textile waste- A study and design development
GE/25	Meng Xu, Chen Liu and Caizeng Ye	Modeling and Simulation Analysis of Teaching Reform Ability Cultivation Based on Emotional Intelligence and High Performance Computing
GE/32	Ping Huang, Ping Pan and Wan Zhan	Optimization of Intelligent Evaluation of English Diagnosis System Based on Particle Swarm Optimization
GE/40	SuilingOu	3D Virtual Reality System for Digital Tourism Visualization in Smart Cities

GE/45	Xiaoying Qi and Hefei Luo	Under the Background of Big Data Mental Health Assessment and Countermeasures of Driving School Employees in Jilin Province
GE/46	Baoshun Liu	Construction of Automatic Identification System for Bridge Structural Parameters Based on Improved Damage Algorithm
GE/51	Bing Tan	Application of 3D Printing Technology in Ceramic Product Design
GE/53	Wei Cao	Design of English Grammar Error Correction System Based on Deep Learning Algorithms
GE/62	JinhuanZang, Heling Mao and Lu Zhang	Full-Cycle Data Analysis Platform Construction Scheme for the Truck Industry
GE/62	JinhuanZang, Heling Mao and Lu Zhang	Full-Cycle Data Analysis Platform Construction Scheme for the Truck Industry
GE/65	Jiao Xu	Application and Decision Support of Multi-Objective Optimization Algorithm in Urban Landscape Planning
GE/69	WenzhiHou, Pingyang Wang, XiuminLv, Jiting Yang, Wei Man and Xiaoyi Zhao	Swimming Action Recognition and Analysis System Based on Intelligent Algorithm
GE/70	WenzhiHou, Pingyang Wang, XiuminLv, Jiting Yang, Wei Man and Xiaoyi Zhao	Application of Computer Vision and Deep Learning in Swimming Action Recognition and Evaluation
GE/76	Hao Tian	Research on the Design of Intelligent System of College Physical Education in the Era of 5G+ Artificial Intelligence
GE/77	Tao Yang and Yong Zhang	Analysis and Design of Interior Space for Elderly under the Background of Smart Elderly Care

PAPER SESSION 1 DAY 2
TRACK 1 General Engineering

Session Chair: Dr. S. Kanthalakshmi, Professor

Co-Chair: Dr. J. Baskaran, Professor

Date: 18th November 2023

Time: 10.45am – 12.45 pm

VENUE: PSG Centre for Academic Research and Excellent, Peelamedu,
Coimbatore, Tamilnadu, India. -Room No:202.

Online link: <https://meet.google.com/zzx-pyzn-jhs>

PAPER ID	AUTHOR(S)	PAPER TITLE
GE/47	Lihua Sun, Shusheng Gong, and Yanbing Wang	Data Analysis of the Function Mechanism of Information Technology in Cultural Poverty Alleviation and Improvement of Rural Population Quality
GE/44	Lili Zhang	Application of Artificial Intelligence Technology in Game NPC
GE/43	Haiyong Shen and Qian Li	Implementation of Internet-based Virtual Reality Technology in Interior Design
GE/30	Zhiying Tian and Jiaqi Wang	Research and Application of Assembled Adaptive New Sliding Mode System Based on Internet of Things Technology
GE/33	Ying Zhong	Research on Personalized English Learning System Based on Big Data and Cloud Computing
GE/35	Yu Xiu	Application of Data Mining Technology in Civil Engineering Systems
GE/37	Mengbiao Xia and Zhiqiang Liu	Design of Frost Protection System for Cold Region Tunnels Based on Improved Genetic Algorithm
GE/39	Hao Wang, Fengping Ni and Wen Chen	Detection Technology Ability of Benzene in Adhesives by Iteration Robust Statistic Technique
	Jiaqi Chi and Hongjin Sun	Crossover Covering Algorithm in Intelligent Space Design
GE/22	Chunfeng Fan, Zhiyong Zhu, Weilong Chen, Kai Qin, Haimei Huang and Zhuang Huang	Navigation of Substation Inspection Robot Based on Machine Vision
GE/24	Zaiyi Pu	Smart Campus Business Flow Reconstruction Algorithm Based on Unified Identity Authentication and Microservices
GE/25	Yu Peng, Tian Wang, Xu Wang and Leilei Kang	Seismic Performance of Vertically Prestressed Semicircular Anti-Slide Piles Based on Deep Machine-learning Algorithms

GE/27	Zilin He	Building Space Optimization Algorithm Based on Multi-Agent
GE/28	Shiyang Li, Qihong Fan, Wei Li, Songhe Zhao and Ying Sun	Exploration on Optimal Dispatching of Rural Virtual Power Plant for Power Carbon Emission Based on LMDI Decomposition Method
GE/29	Jingjie Kang, Lijun Zhang, Yuandong Sun, Xiaoyu Yang, Ruolan Wang and Tianhao Zhao	A Novel Full-Angle Detection Method for Bolt Loosening Based on Color Segmentation

PAPER SESSION 1: DAY 1

TRACK 1 Management Studies

Session Chair: Dr S Prabhu, Professor

Date: 17th November 2023

Time: 10.45am – 12.45 pm

Venue: PSG Management Studies

On line Link: <https://meet.google.com/bkf-puxi-umy>

PAPER ID	AUTHOR(S)	PAPER TITLE
MS/33	Jielin Wang	Intelligent Evaluation System for Economic Level of Modern Enterprises Based on BP Neural Network Optimization Algorithm
MS/34	Han Yu	Digital Management of Educational Resource Allocation in Colleges and Universities Based on PSO Algorithm
MS/36	Hongye Cui, Chuan Xu and Kangjie Sun	Unveiling the Future of Engineering Management: The Role of Artificial Intelligence and Big Data
MS/41	Huihui Gao	Evaluation of Intelligent Student (Work) Management and Evaluation Information System Based on K-means Algorithm
MS/52	Yichun Tang	Design and Implementation of a Student Management System Based on Springboot Framework Technology
MS/73	Yu Zhao, Min Liu and Lijin Ma	Research on the Development Path of Industry-education Integration Talent Training for E-commerce Majors in the Context of 5G Internet of Things
MS/79	Huichao Liang, Yuan Liu, Di Wang, Man Guo, Lin Mei and Haibin Zhao	A Domestic Database Replacement of Information Systems in Enterprise

PAPER SESSION 1 DAY 2
TRACK 1 Management Studies
Session Chair: Dr S Prabhu, Professor
Date: 18th November 2023
Time: 10.45am – 12.45 pm
Venue: PSG Management Studies
On line Link: <https://meet.google.com/bkf-puxi-umy>

PAPER ID	AUTHOR(S)	PAPER TITLE
MS/01	Peng Li, Zizhe Fan and Jihe Zhou	Exploration on the Application of Motion Analysis and Simulation System in Rehabilitation Training
MS/05	Tingshan Zhou	Design of an Omnidirectional Mobile Robot Capable of Launching Projectiles
MS/07	Lan Wu and Ji Cheng	Intelligent Information Teaching Management System Based on Data Mining Technology
MS/08	Bo Liu ¹ and Yang Han ²	Design and Development of Industrial Building Construction System based on BIM
MS/10	Zhaodong Zhai, Wei Ma and Jingang Gao	Design of Experimental Platform for Mechanical Course of Intelligent Control System Based on Data Mining Technology
MS/11	Xuan Gong	Reducing Judicial Bias by Using Artificial Intelligence
MS/22	Fangjun Li, Jianyong Gao, Jing Wang, Yongbo Zhou and Peng Zhang	Correlation Evaluation and Optimization of Greenhouse Gas Emissions and Electricity Energy Consumption

PAPER SESSION II: DAY 1

TRACK 1 EE and EC

Session Chair: Dr S Kanthalakshmi, Professor

Co-Chair: Dr. J Baskaran Professor

Date: 17th November 2023

Time: 2pm – 3.45 pm

VENUE: PSG Centre for Academic Research and Excellent, Peelamedu,
Coimbatore. Room No:202

On line Link: <https://meet.google.com/zwd-tuav-nev>

PAPER ID	AUTHOR(S)	PAPER TITLE
EC/201	S. Jayalakshmi , S. Divya	Intelligent Traffic Sign Detection using RCNN with Different Weather Conditions.
EE/21	Latha R, Navaneethan S	Artificial Neural Network based Bidirectional Converter Control for Electric Vehicle Charging
EE/27	Latha R, Archana N, Sri Vikram P	Isolated Boost DC-DC Converter with Reduced Switches for Fuel Cell Applications
EE/39	Renwu Han	Application of Nanofluidic Materials in the Cooling System of New Energy Vehicle Power Battery
EE/47	Jian Chen, Dong He, Yibin Kang, Chunlei Zhou, Jimeng Song, Anqing Chen, Jinhu Li and Ziqi Shen	Research on a Modeling Method for Multi source Heterogeneous Energy Power Database
EE/50	Weixuan Liu	Time Series Modeling of Power System
EC/54	Yiming Ren	Design and Implementation of Navigational Aid Telemetry and Remote Control System Based on Wireless Sensor Network and AIS
EC/55	Jie Wang and Nana Liu	Application of Optimized Finite Element Algorithm in Structural Mechanics Simulation System
EC/61	Lei Sun	Platform Design of Project Bidding System Based on TCM-KNN and Genetic Algorithm
EC/67	Yihui Mu	Design Analysis of Radiation Hardened Integrated Circuits Using Nanotechnology
EC/68	Han Shi and Jian Tang	A Three-Dimensional Performance Evaluation Model Based On Grey Fuzzy Iterative Algorithm

EC/71	Jianglin Lu	Path of Ideological and Political Education in the Sino-German Dual System Localization Learning Field Based on PLC Control Technology
EC/72	Lan Lu	Analysis of Indigo Dyeing Pattern Design Structure based on Interactive Genetic Algorithm
EC/74	RongzengHou	Cultural Communication Field Risk Challenges and Countermeasures Based on Artificial Intelligence Algorithms
EC/75	Chen Chen	A Comprehensive Statistical Evaluation System for Boxing Referees Based on Convolutional Neural Networks

PAPER SESSION II: DAY 2

TRACK 1 EE and EC

Session Chair: Dr S Kanthalakshmi, Professor

Co-Chair: Dr. J Baskaran Professor

Date: 18th November 2023

Time: 2pm – 3.45 pm

VENUE: PSG Centre for Academic Research and Excellent, Peelamedu,
Coimbatore. Room No:202

On line Link: <https://meet.google.com/zwd-tuav-nev>

PAPER ID	AUTHOR(S)	PAPER TITLE
EE/20	Di Ma and Jingrui Qin	Assessment of Risk Management Capability and Effectiveness of Intelligent Algorithms in Energy Finance
EC/21	Longju Niu	New Applications of Online Education Content Analysis Based on Natural Language Processing Technology
EE/19	Xiuling Li	Education Collaborative Management System Based on Intelligent Multimedia Technology
EC/45	Peixian Wu	System of Mining and Analysis of Business Administration Data Based on POS Intelligent Algorithm
EC/43	Binghao Qu	Urban Public Art and Artificial Intelligence: Application of Intelligent Algorithms in Art Creation and Interaction
EC/32	Daocai Han	Machine Vision Prediction Model for Product Color Design by Kansei Engineering
EC/38	Fengjuan Cui ¹ , Xiaowei Xu ¹ , Li Zhang ¹ , Jie Yin ¹ , Meng Tan ¹ , Feng Chen ¹ , Yuan Song ² , Yarong Li ² and Zhen Zhao ²	Illegal Sea Project Discovery Algorithm based on Hash Table and DBSCAN Algorithm
EC/47	Di Zhao, Yimei Cao and Lulu Mei	Multi Factor Risk Assessment Algorithm in Digital Economy Platform
EC/12	Jing Dong	Learning Behavior Analysis and Prediction of Teaching System Based on Neural Network Algorithm
EC/15	Kaichen Zhang	Application of Virtual Reality Technology in Public Art Design
EC/18	Qihan Bao	Investigation on Evaluation and Optimization of Intelligent Business Statistical Models

PAPER SESSION 1: DAY1

TRACK 1 Medical Engineering

Session Chair: Dr D Sivakumar, Professor

Date: 17th November 2023

Time: 10.45am – 12.45 pm

Venue: PSG Pharmacy, Peelamedu, Coimbatore, Tamilnadu, India.

Online Link: <https://meet.google.com/qzv-frve-tmk>

PAPER ID	AUTHOR(S)	PAPER TITLE
EE/19	Kanthalakshmi S	Machine Learning Approach For Blood Pressure Measurement Using Bio-Impedance
ME/63	Tingting Xu and Yanxing Chen	Application of Intelligent Information Platform in Improving Nursing Efficiency
ME/64	CaihongCao,Haijun Shan, XiaosuJie, Yuanjun Lou, YujinHou and Yingying Zhang	Application of Modern Information Technology in Remote Rehabilitation Training System
ME/78	Zhen Chen and Shaocheng Song	Research on the Impacts of Different Model Parameters on the Trends of Infectious Diseases Based on Improved SEIR Model
ME/81	XufanChen, Tianyi Chai	Research on hospital information data statistics under the background of big data and artificial intelligence

PAPER SESSION 1-Day 2

TRACK 1 Information Technology

Session Chair: Dr P Vijayakumar, Professor and Dean.

Date: 18th November 2023

Time: 10.45am – 12.45 pm

Venue: PSG Institute of Technology and Applied Research, Neelambur,
Coimbatore, Tamilnadu, India.

Online Link: <https://meet.google.com/zpe-uzie-ove>

PAPER ID	AUTHOR(S)	PAPER TITLE
IT/31	Ning Zhou and Jianman Jiang	Multi-objective Tracking Algorithm for Intelligent Networked Vehicles in Hybrid Traffic.
IT/38	JunqiangJia, Na Lv, MaihebubaiXiaokaiti, Degao Li and Liang Gou	Research on Digital Substation Fault Diagnosis System based on Data Interpolation Method.
IT/42	Hui Xiao	New Media Detection Technology Based on Big Data Network Intelligent Algorithm.
IT/43	Dongsheng Yang	Film and Television Production AI Intelligent Optimization Processing System Based on Neural Optimization Algorithm.
IT/49	Jing He, Peizhuo Wang, Jiayi Zhu and Jichao Zeng	Application and Optimization of Mesh Simplification in 3D virtual Reality Scene in a High-performance Environment.
IT/57	QiyuanJie	Design of Personal Information Security Protection System in Computer Network.

PAPER SESSION 1-Day 2

TRACK 1 Information Technology

Session Chair: Dr D Siva Kumar, Professor

Date: 18th November 2023

Time: 2pm – 3.45 pm

Venue: PSG Institute of Technology and Applied Research, Neelambur,
Coimbatore, Tamilnadu, India.

Online Link: <https://meet.google.com/zpe-uzie-ove>

PAPER ID	AUTHOR(S)	PAPER TITLE
IT/02	Dagang Si and Lei He	Exploration on Ant Colony Optimization for Optimizing Land Use Spatial Allocation
IT/11	Yuhua Wei and Yunxing Chen	Design and Realization of Cloud Service Training Platform for Intelligent Unmanned Aerial Vehicle Interaction with Edge Computing
IT/13	Yadong Zhang ¹ , Yujuan Zheng ² , Chen Yin ¹ , Chunju Shi ¹	Exploration on Intelligent Interaction Design and User Experience of VR Platform Based on Intelligent Perception and Deep Learning
IT/17	Yimei Cao, Di Zhao and Chaoying Xiao	Exploration on Financial Risk Management under Machine Learning Algorithms
IT/15	Guangpeng Li, Jie Sun, Yingling Du and Yingli Zhou	Application of Face Recognition Technology Based on Deep Learning Algorithms in Credit Banks
IT/20	Jinyun Yu ¹ , Hao Sun ² and Tuteng Chen ²	Network Security Protocol Testing Technology Based on Wireless Communication System

IT/21	Lujie Duan	Research on Library Accurate Recommendation System Based on Big Data Technology and User Portrait
IT/22	Qian Xie	Research on Modeling and Analysis of Logistics Business Process Based on Petri Net