

# The 27<sup>th</sup> IEEE/ACIS International Summer Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2024-Summer)



## Final Program

July 5-7, 2024

Communication University of China

Beijing, China

<https://acisinternational.org/conferences/snpd-2024/>

## Conference Organizing Committee Members

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Communication University of China, China

### Conference Chairs

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Central Michigan University, USA

## Program at a Glance

### Friday, July 5, 2024

<b>Time</b>	<b>Activity</b>	<b>Location</b>
9:00 – 17:00	Registration	Beijing Huayang Nianhua Hotel (No. 8 Gaojing Culture Park, Building B, Phase III of Dongyi International Media Industrial Park, Gaobeidian Township, Chaoyang District, Beijing, China)

### Saturday, July 6, 2024

<b>Time</b>	<b>Activity</b>	<b>Location</b>
8:30– 16:00	Registration	West Foyer, Academic Exchange Center, Communication University of China
9:00 – 9:30	Opening Ceremony	Room V01, Academic Exchange Center, Communication University of China
9:30 – 10:10	Keynote 1	Room V01, Academic Exchange Center, Communication University of China
10:10 – 10:30	Photo & Coffee Break	West Foyer, Academic Exchange Center, Communication University of China
10:30 – 11:10	Keynote 2	Room V01, Academic Exchange Center, Communication University of China
11:10 – 11:50	Keynote 3	Room V01, Academic Exchange Center, Communication University of China
12:00 – 13:30	Lunch	Beiyuan Restaurant, Communication University of China
13:30 – 15:30	Regular Session A1	Room V06, Academic Exchange Center, Communication University of China
	Workshop 1 (SMTA 2024)	Room V04, Academic Exchange Center, Communication University of China
15:40 – 17:40	Workshop 2 (CSII 2024)	Room V06, Academic Exchange Center, Communication University of China

	Workshop 3 (SMTA 2024)	Room V04, Academic Exchange Center, Communication University of China
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**Sunday, July 7, 2024**

<b>Time</b>	<b>Activity</b>	<b>Location</b>
9:00 – 9:40	Keynote 4	Room V05, Academic Exchange Center, Communication University of China
9:40 – 10:20	Keynote 5	Room V05, Academic Exchange Center, Communication University of China
10:20 – 10:30	Coffee Break	West Foyer, Academic Exchange Center, Communication University of China
10:30 – 11:10	Keynote 6	Room V05, Academic Exchange Center, Communication University of China
11:10 – 11:50	Keynote 7	Room V05, Academic Exchange Center, Communication University of China
12:00 – 13:30	Lunch	Beiyuan Restaurant, Communication University of China
9:30 – 11:45	Regular Session A2	Room V04, Academic Exchange Center, Communication University of China

## Keynote 1

### Where AI meets IoT: A Case Study in human activity recognition

Prof. Nugent

Professor of Biomedical Engineering

Head of School of Computing, Ulster University

CD.NUGENT@ULSTER.AC.UK

#### Abstract

Advances in computational power, high speed communications, artificial intelligence (AI) and low cost sensing devices are providing us with the tools and platforms that we require to assist in making a step change across a wide range of IoT based application domains. Smart environments have already established themselves as appropriate tools for the tracking of inhabitants and the profiling of behavioural trends. At the core of this process is the fundamental task of identifying the individual activities that each inhabitant is undertaking and subsequently building a deeper understanding of likely future activities in addition to analysis of any potential deviations from the normal. Whilst many approaches to human activity recognition have yielded high levels of performance the data available is now being considered by many as hindering significant improvements in performance.

In our present work we have considered innovative computational strategies in an effort to increase the performance of human activity recognition algorithms. We have embraced the notion of using reconfigurable smart spaces coupled with augmentation of data sets with synthetic data.

In this presentation an outline of our approach to date will be presented in addition to identifying a roadmap of our future planned activities. Specifically, the following research themes will be considered:

- How we can leverage the benefits from edge computing within the human activity recognition paradigm?
- How can we address the problem of limited high quality and full annotated data sets?
- Can sustainability be embedded with the design process?
- What strategies are available to assist in personalization of services?

## **Bio**

Chris was awarded a first class honours in BEng Electronic Systems and a PhD in Biomedical Engineering both from the University of Ulster in 1995 and 1998, respectively. He was appointed as full Professor of Biomedical Engineering in 2008.

From 2015-2017 he was the Director of the Computer Science Research Institute at Ulster University and in 2017 he was appointed Head of the School of Computing. He is currently serving his second term in this role.

His research interests include the development and evaluation of technologies to support pervasive healthcare within smart environments. Specifically, this has involved research in the topics of mobile based reminding solutions, activity recognition and behaviour modelling and more recently technology adoption modelling. He has been instrumental in developing the research agenda for Digital Health at Ulster University and the establishment of Ulster's Connected Health Living Lab. He is the director of the Pervasive Computing Research Centre and is also the co-Principal Investigator of the Connected Health Innovation Centre.

Chris has focussed on the development of impact from his research through a number of industrial partnerships in the form of Innovation Centres. He is Principal Investigator at Ulster for the PWC Advanced Research and Engineering Centre which has a focus on digital transformation, and co-investigator for the BT Ireland Innovation Centre which is developing computational solutions in the domain of the Internet of Things and cyber security.

Through his network of collaborators he has endeavoured to share the findings of his research and strategies in Digital Health. He has held visiting Professorships at Halmstad University (Sweden) and the University of Florence (Italy) and is currently a visiting Professor in Pervasive and Mobile Computing at Lulea Technical University (Sweden), a visiting Professor in Computing at Shandong Jianzhu University (China) and a Visiting Professor in Computing at Dalian University of Technology (China).

Since 2008 has served as an Associate Editor for the Editorial Board of the IEEE Engineering Medicine and Biology Conference, Healthcare Information Systems Theme and he is currently serving as a member of Ireland's Commission on Care for Older People.

## Keynote 2

### Applications and Reflections of Trusted Technology in Power Information Innovation

Bo Zhao

professor and Ph.D. supervisor, School of Cyber Science and Engineering

Wuhan University, China

[zhaobo@whu.edu.cn](mailto:zhaobo@whu.edu.cn)

#### Abstract

The digitalization process of power grid construction is accelerating, and digital systems require enhanced security technologies to prevent the leakage of critical information. New technologies such as cloud computing, the Internet of Things (IoT), and big data are being widely applied in power grid construction. These technologies result in critical grid data being stored or transmitted through cloud platforms and mobile terminals, posing new challenges to the information security of power grid construction.

With the construction of smart grids, network boundaries extend from the generation side to the user side, covering all aspects of the smart grid. This expansion is characterized by a large number of nodes, wide coverage, and technical complexity, making information security risks more prominent.

Trusted computing technology transforms passive detection into proactive defense by establishing a root of trust from the hardware level. Through a trust transmission mechanism, this trust is extended to the entire system. If the system encounters external attacks or malicious exploitation, it can promptly detect and respond to such malicious behavior. Developing and researching trusted computing technology and actively applying it to data security protection in power information innovation are of profound significance for both the technology itself and the power information sector. However, there are still many challenges that need to be overcome in this process.

#### Bio

Bo Zhao, Ph.D., is a second-level professor and Ph.D. supervisor. He has been recognized as a National Cybersecurity Advanced Individual and an Excellent Teacher in Cybersecurity.

Currently, he serves as the Party Secretary of the School of Cyber Science and Engineering at Wuhan University. He is also a director of the Chinese Association for Cryptologic Research.

His research interests include industrial control system security, cryptography applications, information system security, trusted computing, embedded systems, cloud computing security, and cybersecurity technologies. He has led and completed over ten major scientific and technological projects funded by national programs such as the 863 Program, the 973 Program, and the National Natural Science Foundation. His work in developing a Trusted Cloud Server and Virtual Trusted Platform Module has significantly enhanced the security capabilities of virtual computing environments and embedded systems in intelligent networked industrial control scenarios, promoting the advancement of independent trusted technologies in industrial control systems.

Dr. Zhao has received the First Prize of the Hubei Province Science and Technology Progress Award twice and the Second Prize once. He has applied for and been granted over 20 patents related to his projects and has published more than 170 scientific papers.



## **Keynote 3**

### **Optimizing Software Evolution: Navigating the Landscape through Concept**

#### **Location**

Simon Xu

Professor and Director, School of Computer Science and Technology

Algoma University, Canada

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#### **Abstract**

In the dynamic landscape of software evolution, programmers face the critical task of modifying systems efficiently. Central to this challenge is the process of concept location, wherein developers delve into the source code to identify relevant sections for change. Without effective tools, this manual endeavor can become arduous and costly. However, the field offers promising avenues for automation through static, dynamic, and hybrid methods. In this talk, we will explore the significance of concept location in software evolution, introducing key static techniques and their applications. Through case studies, we will evaluate their effectiveness and efficiency, shedding light on practical implications. At the end, we will address current challenges and future research directions in advancing the field of concept location.

#### **Bio**

Dr. Simon Xu is a Full Professor and Director in the School of Computer Science and Technology at Algoma University where he has been a faculty member since 2002. Prior to his tenure at Algoma University, he was working in the School of Computer Science of University of Windsor, Canada. Additionally, he serves as a guest professor at Wuhan University and the adjunct professor at China University of Mining and Technology, China. Dr. Xu earned his Ph.D. degrees from Wayne State University, in the United States, and the University of Liege in Belgium. His research focuses on software evolution, program comprehension, big data, and cognitive process during software development. Dr. Xu has published more than 90 articles in referred journals and conference proceedings and a few authored/co-authored books. He has chaired seven IEEE international conferences and has been invited to deliver keynotes at various IEEE conferences. He is a senior member of IEEE and a member of ACM.

## Keynote 4

### Visual and cognitive computing for human-machine interaction

Hui Yu

Professor, School of Creative Technologies

The University of Glasgow, UK

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#### Abstract

With the increasing demand of machine intelligence across a wide range of application scenarios, human-machine interaction (HMI) emerges as another essential communication, whereby facial-expression-aware is one of the principal features for natural interaction. The principal branch of my research has been driven by the understanding of mechanism of emotion and facial expression combining knowledge of creative technologies with multiple disciplines, such as visual and cognitive computing, as well as machine learning. Particularly, biometric data precisely record the facial muscle activity or brain activity closely related to facial movements and the internal emotional states. These multiple sensing channels would help provide an insight into the emotion and perception of facial expression, to develop widely accessible HMI solutions able to track facial motions and recognise affective states in a highly efficient and precise manner. This talk will discuss the development of visual capture of facial expression processing. This talk will also discuss research about the development and challenges of image/video clustering as well as our recent development on this topic.

#### Bio

Hui Yu is a Professor with the University of Glasgow. He leads the Visual and Cognitive Computing Group at the university. His research interests lie in visual and cognitive computing as well as machine learning with applications to 4D facial expression modelling and analysis, human-machine interaction, intelligent vehicle, and video analysis. Professor Yu's research work has led to several awards and successful collaboration with worldwide institutions and industries. He is the Associate Vice President of IEEE Systems, Man, and Cybernetics Society and a Scientific Advisor for some high-tech companies in the UK. Prof. Yu is the PI on grants from a diverse range of funding sources including the EPSRC, EU FP7, RAEng, Royal Society, Innovate UK and Industry. He has been awarded Industrial Fellowship by the Royal Academy of Engineering. He serves as an Associated Editor for IEEE Transactions on Human-Machine Systems, IEEE Transactions on Computational Social Systems, IEEE Transactions on Intelligent Vehicles and IEEE/CAA Journal of Automatica Sinica.

## Keynote 5

### Advances in Intelligent Video Coding Technology

Siwei Ma

Professor, School of Computer Science

Peking University, China

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#### Abstract

With the rapid development of the digital era, video coding technology is undergoing profound transformations. The new generation of intelligent coding technology has made significant breakthroughs in video perception, analysis, and understanding, bringing revolutionary changes to video processing.

Feature-based perceptual coding and semantic-based cognitive coding are two key technological directions. These advanced methods not only significantly improve coding efficiency but also more accurately capture and preserve the essential information of videos, providing new solutions for high-quality video transmission and storage.

China's independently developed Audio Video Standard (AVS) standard has introduced a series of technological innovations in the field of intelligent video coding, greatly accelerating the industrialization process. These innovations have optimized coding performance, improved system security, and contributed significantly to China's influence in international video coding standards.

However, the development of intelligent video coding technology still faces many challenges. Maintaining stability in complex and variable application scenarios, further improving coding efficiency, and better meeting the specific needs of different industries are all pressing issues. This report will revolve around the latest advancements in these technologies, analyze their potential in practical applications, and look forward to future development directions.

#### Bio

Dr. Siwei Ma received his Ph.D. from the Institute of Computing Technology, Chinese Academy of Sciences in 2005. He conducted postdoctoral research at the University of Southern California from August 2005 to August 2007 and has been working at Peking University since then. He received the National Science Fund for Distinguished Young Scholars in 2013 and was selected for the second batch of the Youth Top-notch Talent Support Program in 2015.

His main research areas include video coding and processing. Dr. Ma has published over 40 SCI papers, co-authored 2 monographs, and holds more than 40 authorized invention patents. He has led several national-level projects, including those funded by the National Natural Science Foundation and the 863 Program.

Awards:

- National Excellent Doctoral Dissertation Award (2007)
- Second Prize of the National Technological Invention Award (5th place, 2006)
- Second Prize of the National Scientific and Technological Progress Award (5th place, 2012)
- First AVS Technology Award (2004)
- First Prize of the China Standard Innovation Contribution Award (2007)
- IEEE 1857 International Standard Contribution Award (2013)

## Keynote 6

### **Large-scale Integration of Remotely Sensed and GIS road networks: a full image-vector conflation approach based on optimization and deep learning**

Ting Lei

Associate Professor, Department of Geography and Atmospheric Science

University of Kansas, USA

lei@ku.edu

#### **Abstract**

Road networks play an important role in the sustainable development of human society. Conventionally, there are two sources of road data acquisition: road extraction from imagery and GIS based map production. Each method has its limitations. The road extraction methods are primarily raster-based and the extracted roads are not directly usable in GIS due to their fragmented and noisy nature, while vector-based methods cannot utilize raster information. Efficient road data production requires an image-vector conflation process that can combine raster and vector forms of road data automatically.

In this study, we propose a full image-vector conflation framework that directly integrates image and vector road data by appropriately transforming extracted roads from imagery and establishing a match relation between these roads and a credible target GIS road dataset. Based on analyzing these match relations, we propose new metrics for measuring the degree of agreement between the raster and vector road data. The proposed framework combines state-of-the-art deep learning methods for image segmentation and optimization-based models for object matching.

We prepared a large-scale high-resolution road dataset covering the Douglas and Shawnee counties in Kansas, US. We then extracted and matched road segments to the TIGER/Line roads.

Experiments show that conventional performance metrics for road extraction (e.g. IoU) cannot be directly used for measuring the degree of agreement between image and vector road data as they are pixel-based and are too sensitive to spatial displacement. Instead, the newly defined vector-based agreement metrics are needed for image-vector conflation purposes. Experiments show that nearly 90% of GIS road lengths in the study area were extracted and over 90% of extracted roads matched the target GIS roads.

The new framework streamlines raster-vector conflation of roads and can potentially expedite relevant geospatial analyses regarding change detection, disaster monitoring and GIS data production, among others.

**Bio**

Dr. Lei's research interest is in Geographic Information Science, geospatial computational methods/algorithms, location and network analysis, remote sensing and artificial intelligence.

Dr. Lei's research aims to develop efficient computational methods to solve new problems in transportation, urban planning, operations research, resource management and sustainable development. He also has a keen interest in computing in areas such as data structure and databases, artificial intelligence, software engineering, and open-source technology. Dr. Lei has published in GIS and related journals including International Journal of Geographic Information Science, European Journal of Operational Research, and Transportation Research.

## Keynote 7

### Exploration of Several Issues in Time Series Forecasting

Mingli Song

Professor, School of Computer and Cyber Sciences

Communication University of China, China

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#### Abstract

With the rapid development of Internet, Internet of Things (IoT) technologies, and supporting hardware resources, time series data generated in various social production and life fields are characterized by large scale, high dimensionality, and influenced by multiple factors. Extracting knowledge and building predictive models from individual sample levels inevitably consumes massive resources, leading to complex and large model structures with poor robustness. Our team has been dedicated to exploring solutions for modeling and predicting time series that adapt to these new characteristics. We propose algorithms assisted by concepts of complexity, information granularity, and federated strategies to improve the accuracy of individual predictive models and establish abstract models from a global perspective.

Granular computing is a higher-level abstraction concept and computational paradigm in the field of intelligent information processing, offering multi-level and multi-perspective approaches for solving complex problems and processing information. By abstracting and simplifying problems, granular computing replaces precise solutions with feasible satisfactory approximate solutions, thereby enhancing problem-solving efficiency. We transform traditional model computational units by granulating different parts of the time series and model structures. In addition, we design corresponding performance metrics and evaluation indicators to show the improved computational efficiency. Additionally, we will discuss and analyze the challenges faced in time series forecasting under current large models.

#### Bio

Mingli Song is a professor and Ph.D. advisor at the School of Computer and Cyber Sciences, Communication University of China. She received her bachelor's and master's degrees from Dalian University of Technology in 2006 and 2008, respectively, and her Ph.D. from the University of Alberta in 2012. Her research interests include time series analysis, granular computing, decision analysis, evolutionary algorithms, system modeling, and machine learning.

She has led two projects funded by the National Natural Science Foundation of China and one project by the China Scholarship Council, and participated in two key national R&D projects. She has published over 30 papers in journals and conferences such as IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Fuzzy Systems, Information Fusion, Information Sciences, and Applied Soft Computing. She also holds one invention patent.



## Program in Detail

### Friday, July 5, 2024

9:00am-5:00pm – Registration

Beijing Huayang Nianhua Hotel

### Saturday, July 6, 2024

8:30am-4:00pm – Registration

Communication University of China

9:00am-9:30am – Opening Ceremony

Room V01, Academic Exchange Center

9:30am-11:50am – Keynote Speeches

Room V01, Academic Exchange Center

12:00am-1:30pm – Lunch

Beiyuan Restaurant

1:30pm-3:30pm – Regular Session A1

Room V06, Academic Exchange Center

Chair: *Prof. Jing Zhou (Communication University of China)*

Tencent/VooV link: <https://meeting.tencent.com/dm/RvadSZZ5fYlj>

College Exam Grader using LLM AI models  
*Jung Lee and Yeong-Tae Song*

Underwater Image Enhancement Method Based on Polarized Images Fusion and Quality Evaluation  
*Bowen Guan, Yan Wang and Jiankai Yin*

A Recommendation Algorithm Based on Cross-View Contrastive Learning  
*Yuying Wang, Jing Zhou and Qian Liu*

Navigating Cryptocurrency Security: Insights into Bitcoin and Ponzi Scheme Vulnerabilities  
*Jack Pham, Lilatul Ferdouse and Ajmery Sultana*

Exploring Personality and Emotion in Risk Prediction of Depression  
*Jiaying Wei and Jing Zhou*

Comparative Analysis of ARIMA and LSTM Models for Stock Price Prediction  
*Smit Anilkumar Pancha, Lilatul Ferdouse and Ajmery Sultana*

Moroccan Public Administration: Which Challenges and Guidelines for an Efficient KMS?  
*Mohamed Amine Zegmout, Asmae El Kassiri, Asmaâ Retbi and Samir Bennani*

Coupling Semantic Association Graphs with Contrastive Learning in Recommendation  
*Yifan Ji and Jing Zhou*

1:30pm-3:30pm – Workshop 1

Room V04, Academic Exchange Center

Workshop Title: The 5th International Workshop on Smart Media Theory and Application

Chair: *Prof. Jiefeng Liu (Communication University of China)*

Tencent/VooV link: <https://meeting.tencent.com/dm/OsIpNO2k4OQp>

The influence of visual information of animated and static logos on consumer intention  
*Szu-Chi Yang, Chia-Yu Tu, Suechin Yang, Tran Quang Duy*

A Deep Learning Method for Automatic News Frame Identification  
*Xin Zhang, Qiyi Wei, Bin Zheng, Pengzhou Zhang*

The Research and Improvement of Stage Music Emotion Recognition Algorithm Based on Convolutional Neural Network  
*Chenxiao Li, Ding Yue, Xiaofang Jin*

The Metaverse: Challenges and Opportunities for AI to Shape the Virtual Future  
*Vincenzo De Masi, Qinke Di, Siyi Li, Yuhan Song*

Towards intelligent communication: machine learning methods for ACARS signal recognition  
*Chen Xu, Yue-lei Xie*

A Multi-staining Digital Pathology Image Registration Method Based on Global and Local Computing  
*Yi Ding, Xin Zhang, Cheng Lu*

A Social Network Analysis of User-Organised Community on Digital Music Platform  
*Manlin Wang, Ting Jiang*

Research on Distributional Compositional Categorical Model in Both Classical and Quantum Natural Language Processing  
*Tingyu Liu, Yingying Wei, Jingtiao Wang*

### **3:40pm-4:40pm – Workshop 2**

**Room V06, Academic Exchange Center**

Workshop Title: The 1st International Workshop on Computational Science / Intelligence & Applied Informatics

Chair: *Shiyao Wei (Florida State University)*

Tencent/VooV link: <https://meeting.tencent.com/dm/AeyroTv6jQbO>

Knowledge Graph Completion Based on Contrastive Learning for Diet Therapy  
*Kaidi Yang, Yangguang Lin, Xuanhan Mi, Yuxun Li, Xiao Lin, Dongmei Li*

Research on improving the brand influence of "Walking Henan·Understanding China"  
*Junya Zhao, Gang Meng, Peng Liu*

Image denoising based on Swin Transformer Residual Conv U-Net  
*Yong Gan, Shaohui Zhou, Haonan Chen, Yuefeng Wang,*

A two-channel hybrid convolutional residual network for super-resolution of infrared images  
*Yong Gan, Haonan Chen, Shaohui Zhou, Yuefeng Wang,*

### **3:40pm-5:40pm – Workshop 3**

**Room V04, Academic Exchange Center**

Workshop Title: The 5th International Workshop on Smart Media Theory and Application

Chair: *Prof. Jing Zhou (Communication University of China)*

Tencent/VooV link: <https://meeting.tencent.com/dm/Ys8t3nYMRs0j>

DGBot: A DeGlobalizing Graph Transformer Model for Bot Detection  
*Junhui Xu, Qi Wang, Chichen Lin*

A Lattice-based Linkable Ring Signature Scheme for Blockchain Privacy Protection  
*Yulong Gao, Xueting Chen, Wenqian Shang*

A Review of Methods Using Large Language Models in News Recommendation Systems  
*Xinmiao Li, Shuang Feng, Xin Zhang*

Analysis of Subjective Evaluation of AI Speech Synthesis Emotional Expressiveness  
*Yihua Ao, Miaotong Yuan*

A Signed Social Network Dataset from YouTube Comments  
*Yiyi Zhang, Yizhen Cao, Xin Zhang*

DSG: A Robustness-Enhanced Self-Supervised Depth Estimation Method  
*Changhao Zhao, Jingyi Zhao, Yikun Xu, Jing An*

Design of a Sharing System based on Privacy-Preserving Personal Data  
*Jianxiang Cao, Xing Song*

A Solution for Conference Room Cluster Audio System Based on Distributed Architecture  
*Xiaoyi Xu, Xin Zhang, Zenglai Wei*

## **Sunday, July 7, 2024**

**8:30am-4:00pm – Registration**

**Communication University of China**

**9:00am-11:50am – Keynote Speeches**

**Room V05, Academic Exchange Center**

**12:00am-1:30pm – Lunch**

**Beiyuan Restaurant**

**9:30pm-11:45pm – Regular Session A2**

**Room V04, Academic Exchange Center**

Chair: *Junjun Si (Communication University of China)*

Tencent/VooV link: <https://meeting.tencent.com/dm/uETbUdd3gt6O>

Research on Student Behavioral Advanced Warning Based on Campus-Card Consumption Data  
*Qinhan He, Jinhui Liu and Tong Zhao*

Enhancing Throughput in Hyperledger Fabric Through Endorsement Policy Strategy  
*Shahroz Abbas, Ajmery Sultana and Wenjun Lin*

An Interactive Tool Enhancing Market Research Analysis through Human-AI Collaboration  
*Naga Shishira Vasikarla, Aanya Goel, Ajmery Sultana, A B M Bodrul Alam, Mahreen Nasir, Rashid Hussain Khokhar and Wenjun Lin*

Advanced Indoor Navigation in the Visually Impaired Through Real-Time Environmental Interpretation using GPT4-V  
*Bamikole Adewale, Chantal Lemieux, Yue Zhang, Mahreen Nasir, Rashid Hussain Khokhar, Ajmery Sultana and Wenjun Lin*

Enabling Universal Web Accessibility Through AI-Driven Adaptive Web Page Modification  
*Wenjun Lin, Bamikole Adewale, Min Li, Mahreen Nasir, Ajmery Sultana, Rashid Hussain Khokhar and Yue Zhang*

Tracing Economic Vibrancy: AI-Driven Analysis of Geographic Clustering in Legal Businesses  
*Taminder Pabla, Ajmery Sultana and Wenjun Lin*

WhisperLink: A Novel Anonymous Messaging Service for a Secured Data Communication  
*Martin Morales, Amit Boyina, Dev Kothari, Md Moniruzzaman and Ajmery Sultana*

Cloud-Enabled Blood Bank Management for an Efficient Healthcare System  
*Carmen Huatuco, Chenyu Zhang, Janviben Patel, Md Moniruzzaman and Ajmery Sultana*

Diagnosability of the strong product of paths and cycles under PMC Model  
*Bu Chen and Feng Li*

## **Future Conference Information**

### **2024 Conferences**

#### **IEEE/ACIS ICIS 2024-Summer I**

IEEE/ACIS 24th International Conference on Computer and Information Science  
**Postponed to September 20-22**, Shanghai, China

#### **IEEE/ACIS ICIS 2024-Summer III**

IEEE/ACIS 26th International Conference on Computer and Information Science  
**July 16-18**, Kitakyushu, Japan

#### **IEEE/ACIS BCD 2024**

9th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science  
**July 16-18**, Kitakyushu, Japan

#### **ACIS AIML 2024**

The 1st ACIS International Conference of Artificial Intelligence Convergence and Machine Learning  
**September 27-29**, Taichung, Taiwan

#### **IEEE/ACIS SNPD2024-Winter**

28th IEEE/ACIS International Winter Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing  
**December 4-6**, Taichung, Taiwan

#### **IEEE/ACIS BCD 2024-Winter**

10th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science  
**December 12-14**, Danang, Vietnam

#### **IEEE/ACIS EAIM 2024**

The 3rd ACIS International Symposium on Emotional Artificial Intelligence & Metaverse  
**December 14**, Danang, Vietnam

### **2025 Conferences**

#### **IEEE/ACIS SERA 2025**

**TBD**, Las Vegas, USA

#### **IEEE/ACIS SERA 2025**

**TBD**, Busan, Korea

## **ACIS Journal Information**

### **International Journal of Networked and Distributed Computing (IJNDC)**

IJNDC is a world-class international journal. The IJNDC journal is now indexed by Web of Science Emerging Sources Citation Index (ESCI) and Scopus. We are expecting to have the IJNDC journal indexed in SCI soon.

<http://www.atlantis-press.com/publications/ijn/dc/>

### **International Journal of Software Innovation (IJSI)**

IJSI is a world-class international journal. The IJSI journal is now indexed by Thomson Reuters, Web of Science Emerging Sources Citation Index (ESCI) and Scopus. We expected the journal to be indexed in SCI soon.

<http://www.igi-global.com/ijsi>

### **International Journal of Big Data Intelligence and Applications (IJBDA)**

A new journal published to be published by IGI-Global.

## **ACIS Official Website**

<http://www.acisinternational.org>