# 13th International Symposium on Computer Science and Educational Technology (ISCSET) 2024 Program

**Date:** 17th – 19th July  
**Location:** IBS Foundation, Lauta/Laubusch, Germany  

Time is by GMT+2  
Version (03 June)

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>16.07.2024</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>From 14:00</strong></td>
<td></td>
</tr>
<tr>
<td>Check-in</td>
<td>Arrival day</td>
</tr>
<tr>
<td>Introduction to IBS</td>
<td></td>
</tr>
<tr>
<td>Preparation for ISCSET 2024</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wednesday</th>
<th>17.07.2024</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chair:</strong> Prof. Uranchimeg Tudevagva</td>
<td></td>
</tr>
<tr>
<td>From 07:00</td>
<td>Registration and Check in</td>
</tr>
</tbody>
</table>
| 10:00 – 10:10 | Opening of IEEE ISCSET 2024  
*Prof. Dr. Dr. h. c. Wolfram Hardt*  
Chemnitz University of Technology, Germany |
| **Plenary session** |  |
| 10:10 – 11:00 | Keynote speech  
“To be define”  
*Prof. Steffen Becker*  
University of Stuttgart, Germany |
| **Session 1 - “Computer Science I”**. Chair: Dr. Ariane Heller |  |
| 11:00 – 11:20 | Decentralized UAV Hangar: A Study for Water Rescue Missions  
*Reda Harradi, Ariane Heller, Wolfram Hardt*  
Chemnitz University of Technology, Germany |
| 11:20 – 11:40 | Design and Implementation of VRUs Detection and Speed Estimation Using an Uncalibrated Top-View Perspective Camera  
*Khulan Khalzaza, Stephen Karungaru, Kenji Terada, Altangerel Ayush*  
Tokushima University, Japan |
**Wednesday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 11:40 – 12:00 | **Inner and Outer Frame-based Continues Object-Tracking for MAV-based Inspection**  
Batbayar Battseren, Md Abdul Awal and Wolfram Hardt  
Chemnitz, University of Technology, Germany. |
| 12:00 – 12:20 | **Research on the β-VAE-DDRRN-BFA Tool Wear Detection Algorithm**  
Kaige Xu, Xiaoming Sun, Yan Chen, Yongliang Wang, Bochao Su  
Harbin University of Science and Technology, China  
Shenzhen Polytechnic University Shenzhen, China |
| 12:30 – 13:30 | Lunch |

**Session 2 - “Computer Science II”. Chair: to be announced**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 13:30 – 13:50 | **The Effectiveness of Gamified Applications for Communicating Complex Bureaucratic Topics**  
Fabius Benjamin Quien, Lilly Siegel, Erwin Dieter Hausmann, Victoria Kitte, Lara Anna Stahlberg, Theodor Tran, Leander Benedikt Stedler, Maria Bianca Florea, Manuel Heinzig, Matthias Vodel, Marc Ritter  
University of Applied Sciences Mittweida, Germany |
| 13:50 – 14:10 | **Run Time and Accuracy of Machine Learning Algorithms for Speaker Identification**  
Stephan Lede, René Schmidt, Wolfram Hardt  
Chemnitz, University of Technology, Germany |
| 14:10 – 14:30 | **The Algorithm for Classifying Text Data in Social Networks**  
Bahrixon Otaxonova, Yusuf Yuldoshev, Nasibakhon Rasulova and Dilnoza Zaripova  
Tashkent University of Information Technologies named after Muhammad al-Khwarizmi, Uzbekistan |
| 14:30 – 14:50 | **Development of Enhanced SOTIF Analysis Framework Using MBSE and Virtual Validation with Focus on RSS Framework**  
Vignesh Mohan, Reda Harradi, Wolfram Hardt  
Chemnitz, University of Technology, Germany |
| 14:50 – 15:10 | **Implementation of Machine Learning and Fuzzy-Logic Rules for Intelligent Tutoring System Design on Photography**  
Ghita Athalina, Tomonori Hashiyama  
University of Electro-Communications Chofu, Japan |
| 15:10 – 15:30 | **A New Approach for Early Detection of Vulnerabilities Across the Automotive Software Development**  
Dimitrios Datsogiannis, Ariane Heller, Wolfram Hardt  
Chemnitz, University of Technology, Germany |
| 15:30 – 15:50 | **Smart Car Parking System - A New Approach to car Parking Management**  
Rupam Das, Er. Ritu, Rudra Parashar, Priyanshu Kumar, Shubham Gupta  
Chandigarh University Mohali, Punjab, India |
| 16:00 – 16:30 | Coffee Break |

**Session 3 - “Computer Science III”. Chair: Dr. Tobias Schlosser**
Wednesday 17.07.2024

16:30 – 16:50
Dangerous Goods Detection in X-ray Security Inspection Images Based on Improved YOLOv8
Pengfei Yuan, Xue Wang, Xinmiao Zhou, Xiaoyu Yu, Aili Wang, Haibin Wu
Harbin University of Science and Technology, China
Zhongshan Institute, China

16:50 – 17:10
Cross Scene Hyperspectral Image Classification Combined with Fusional Spatial-Spectral Attention
Defei Li, Hui Yang, Xue Wang, Haibin Wu, Xinmiao Zhou, Xiaoyu Yu, Aili Wang
Harbin University of Science and Technology, China
Zhongshan Institute, China

17:10 – 17:30
Intelligent Shrimp Monitoring System Based on YOLOv8 and Jetson Nano
Siqi Yan, Xinyu Liu, Haoran Lv, Xuxi Zhao, Miaomiao Liu, Aili Wang
Harbin University of Science and Technology, China
China Academy of Information and Communications Technology, China

16:30 – 17:30
Steering committee meeting on issues of 2025
At least one responsible person from each Partner university should be on time to this meeting

18:00
Dinner

19:30
Let us introduce our own country – Ice breaking evening
Hints: Can wear national dresses, bring your national snacks, can sing or dance, can show slides about your country, just feel free to introduce your country to others and use time to extend your networking

Thursday 18/07/2024

07:00 – 11:00
Registration and Check In

From 08:00
Breakfast

Session 4 - “Computer Engineering I”. Chair: Dr. Batbayar Battseren

09:00 – 09:30
Invited Talk
Surface Projection Enhancement and VR Technology Combined with MIS Image Reconstruction
Prof. Haibin Wu
Harbin University of Science and Technology, China

09:30 – 09:50
Predictive Learning Analytics Utilizing Formative Assessments and Recommender System for Study Success
Ummay Ubaida Shegupta, Md Shoriful Islam, Wolfram Hardt
Chemnitz University of Technology, Germany

09:50 – 10:10
Subjective and Objective Evaluation of Mock Classes for Faculty Development
Satori Hachisuka, Kayoko Kurita, Shinichi Warisawa
University of Tokyo Chiba, Japan
The University of Tokyo, Japan
### Thursday 18/07/2024

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:10 – 10:30</td>
<td><strong>Utilization of DenseNet201, EfficientNetB3, Resnet50, and VGG19 as Pre-Trained Convolutional Neural Network Models for Brain Tumour Classification</strong>&lt;br&gt;Adel Sulaiman, Kanwarpartap Singh Gill, Rahul Chauhan, Srinivas Luvalla, Hani Alshahrani, Mana Al Reshan, Asadullah Shaikh&lt;br&gt;Chitkara University, Punjab, India&lt;br&gt;Graphic Era Hill University, Dehradun, Uttarakhand, India&lt;br&gt;SR University, Warangal, India&lt;br&gt;Najran University, Saudi Arabia</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td><strong>Coffee Break</strong></td>
</tr>
<tr>
<td>11:00 - 11:20</td>
<td><strong>Measurement Models for Group-Peer Assessment of Project-Based Learning in Software Engineering</strong>&lt;br&gt;Paul Hubert Vossen, Suraj Ajit&lt;br&gt;SQUIRE Research Institute Niederstetten, Germany&lt;br&gt;University of Northampton Northampton, UK</td>
</tr>
<tr>
<td>11:20 - 11:40</td>
<td><strong>Towards Vision Based Bi-Cycles Detection and an Autonomous Decision Making System for Driving Situation Awareness</strong>&lt;br&gt;Julkar Nine, Ayushkumar Mehta, Sai Rohit Rajkumar, Wolfram Hardt&lt;br&gt;Chemnitz University of Technology, Germany</td>
</tr>
<tr>
<td>11:40 - 12:00</td>
<td><strong>The Level of Digital Literacy Among Students in Uzbekistan: Assessing Skills and Perspectives</strong>&lt;br&gt;Nasibakhon Rasulova, Dilafoza Zaripova, Bahrixon Otaxonova, Feruza Zakirova, Gulnora Tashmukhamedova, Yuliya Anufriyeva&lt;br&gt;Tashkent University of Information Technologies named after Muhammad al-Khwarizmi, Uzbekistan</td>
</tr>
<tr>
<td>12:00 – 12:20</td>
<td><strong>Intelligent Food Identification System Using Improved YOLOv8</strong>&lt;br&gt;Francia Nitiavintokana, Md Abdur Rouf, Xiaoyu Yu, Haibin Wu, Aili Wang, Yuji Iwahori&lt;br&gt;Harbin University of Science and Technology, China&lt;br&gt;Chubu University, Japan</td>
</tr>
<tr>
<td>12:20 – 14:00</td>
<td><strong>Lunch</strong></td>
</tr>
<tr>
<td>14:00 – 14:20</td>
<td><strong>Comparative Study for Monocular Depth Detection Models on Embedded Systems</strong>&lt;br&gt;Abeer Aly Moussa, Shadi Saleh, Wolfram Hardt&lt;br&gt;Chemnitz University of Technology, Germany</td>
</tr>
<tr>
<td>14:20 – 14:40</td>
<td><strong>Development of Pedagogical Creativity of Lecturers in Training Courses Through Innovative-Methodological Projects: A Case of Uzbekistan</strong>&lt;br&gt;Shahnoza Pozilova, Djamshid Sultanov, Feruza Zakirova, Madina Zakirova, Adashboyev Shavkiddin, Ibraynov Askar&lt;br&gt;Tashkent University of Information Technologies Samarkand, Uzbekistan</td>
</tr>
</tbody>
</table>
## Thursday 18/07/2024

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 10:10 – 10:30 | The Evaluation Result Based on the SURE model: Case of Samarkand Branch of TUIT  
Ilkhom Boynazarov, Uranchimeg Tudevdagva, Gulnoza Safarova, Robiya Raxmonova  
Samarkand Branch of Tashkent University of Information Technologies  
Samarkand, Uzbekistan  
Chemnitz University of Technology, Germany |
| 15:00 – 15:20 | A Study of Factors Predicting Students' University Academic Achievement  
Amartuvshin Amarzaya, Jargalsaikhan Ankhbayar, Mend Narantuya  
National University of Mongolia, Mongolia |
| 15:20 – 15:40 | Detection of Rice Sheath Blight Leaf Based on Improved YOLOV8 Algorithm  
Yuze Zhang, Yuxuan Zhou, Hui Yang, Liming Jian, Fangyu Shi, Aili Wang  
Harbin University of Science and Technology, China  
Verification and Testing Institute Harbin, China |
| 15:40 – 16:00 | Coffee Break |
| 16:20 – 18:00 | Social event  
Cruise at Senftenberger Lake |
| 19:00 | Gala Dinner |

## Friday 19/07/2024

**Session 7 - “AI and Educational Technology”**. Chair: Dr. Shadi Saleh

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 09:00 – 09:50 | Keynote Speech  
Human Factors Challenges Resulting from Automation and Artificial Intelligence  
Dr. Ing. Christoph Vernaleken  
Deutsche Aircraft GmbH, Germany |
| 09:50 - 10:10 | The Readiness Evaluation of University Ranking: Case of Mongolian University of Science and Technology  
Batdorj Davagombo, Narantsetseg Yadmaa, Namnan Tumurpurev  
Mongolian University of Science and Technology, Mongolia |
| 10:10 – 10:20 | The Impact of Tutor Quality on E-learning Acceptance: A Mediating Effect of E-assessment in Public Universities of Malaysia  
Muhammad Imran, Adnan Ul Haque, Eugene Kozlovski  
Islamia University of Bahawalpur, Pakistan; Yorkville University, Canada; University of Exeter, UK |
| 10:20 – 10:40 | Enhancing College Students' Critical Thinking Through Classroom News Literacy Intervention  
Swagata Ghosh, Gajendra S. Chauhan, Rena Kotwal  
Birla Institute of Technology & Science, India |
### 10:40 – 11:00
**The ICT Competence Framework for Formal and Non-Formal Educational Training in Mongolia**  
*Itgel Miyejav, Buyandelger Banzragch, Lut-Ochir Vanganjil, Oyungoo Enkhbold*  
*Mongolian National Institute for Educational, Mongolia*

### 11:00 – 11:20
**Neural Understanding of STEM Activities**  
*Ryan Cho, Mobasshira Zaman, Kyu Taek Cho, Jaejin Hwang*  
*Illinois Mathematics and Science Academy, USA*  
*Northern Illinois University, USA*

### 11:20 – 11:40
**Assessment of Higher Education Academic Program Outcomes and Improvement of Quality Assurance Criteria**  
*Oomboosuren Bolorsaikhan, Sugar Enkhtuvshin, Uranchimeg Tudevdagva*  
*Mongolian National University of Medical Sciences, Mongolia*  
*Chemnitz University of Technology, Germany*  
*Mongolian National University of Education*

### 11:40 – 12:30
**Best Paper/Paper Presentation Award session**  
**Reflection and discussion around IEEE ISCSET 2024**

### 12:30
*Lunch*

### 13:00
*Departure*

*Conference fee is included: lunches, dinners, coffee breaks and publication.*