5th EAI COMPUTER SCIENCE AND EDUCATION IN COMPUTER SCIENCE 2026 (EAI CSECS 2026)

Preliminary Program

Nov 3-5, 2026

All times are in EDT — Eastern Daylight Time, UTC -4 hours, Boston, USA

Venue: Boston University Metropolitan College, Boston, USA

Timetable

3 Nov 2026, Tuesday

8:00 am – 8:15 am, On-site registration with welcome coffee

8:15 am – 8:45 am

Welcoming Remarks from Prof. Tanya Zlateva, Dean of the Metropolitan College, Boston University, Prof. Chitkushev, Prof. Kanabar, Prof. Eugene Pinsky, Metropolitan College, Boston University

Radka Vasileiadis, Veronika Kissova, European Alliance of Innovation, General Sponsor

Prof. Ivan Landjev, New Bulgarian University, General Chair of CSECS 2025 and Prof. Dimitar Atanasov, Head of the Department of Informatics at New Bulgarian University

Part I. Education in Computer Science

Chairs: Prof. Chitkushev, Prof. Atanasov

Session AI in Education in Computer Science

8:45 am – 9:45 am

1. Exploring Students Employment. Expectations, AI Concerns and the Role of Universities, Antonova, Albena, Georgiev, Dilyan, Faculty of Mathematics and Informatics, Sofia University St. Kl. Ohridski, Gourova, Elissaveta, New Bulgarian University, Bulgaria
2. Orchestrated Agent Architecture for AI-Assisted Discussion Evaluation, Pike, Courtney, Burstein, Leo, Zlateva, Tanya, Boston University, USA
3. Orchestrating Semester Readiness within a Large LMS Ecosystem A Process-Driven Operational Platform for a Small Academic Technology Team, Abrahamson, Andrew, Burstein, Leo, Boston University, USA
4. Digitalisation of educational centre: The case study Elissaveta Gourova (Sofia University) (New Bulgarian University)

9:45 am – 10:00 am Coffee break

10:00 am – 11:00 am

Session Data analytics in Education in Computer Science

Chairs: Prof. Tanya Zlateva, Assoc. Prof. Elissaveta Gourova

1. Centralized Classroom Data Repository for Learning Analytics in Software Engineering Education, Alex Elentukh, Reed, Rebecca, Han, Chen, Sivadassan, Sarath, Truong, Kevin, Zhang, Xiaoyue, Boston University, USA
2. When Incorrect Feedback Goes Undetected: Evidence from Taxonomy-Based Learning in Software Engineering, Alex Elentukh, Naidoo, Tyron, Boston University, USA
3. Development and Application of the EduFlow BI Platform in the Context of Contemporary Practices of Educational Analytics, Rovenska, Viktoriia, Sahaida, Pavlo, Technical University Metinvest Polytechnica LLC, Ukraine, Rekova, Nataliia, Sofia University "St. Kliment Ohridski", Bulgaria
4. Subjective Preference Judgments in a Hands-On Machine Learning Activity: An Exploratory Study of Packaging Design Evaluations among University Students Hiroko Kanoh (Yamagata University)

11:00 am – 12:00 am

Session Quality of Learning Process in Education in Computer Science

Chairs: Prof. Tuparov and Prof. Zlatev

1. The Efficiency Paradox in Education: Algorithmic Bypass and the Erosion of Learning, Vijay Kanabar, Boston University, USA
2. Career Compass - A Multi-Agent Systems for Skill-Aware Career Advising, Sree Kumar Valath Bhuan Das, Padalkar, Nakul, Zlatev, Vladimir, Zlateva, Tanya, Boston University
3. TerrierTA: An Open, Multi-Agent Framework for Course-Grounded Assessment, Tutoring, and Content Generation, Kaur, Rashanjot (Boston University); Sharma, Bhanu (Northeastern University); Lam, Hong (Boston University); Park, Kathleen (Boston University)
4. Comparative Analysis of Students Performance and Discussion. Participation in Online Learning Environment, Kundu, Triparna (Metropolitan College, Boston University); Pinsky, Eugene (Metropolitan College, Boston University)

12:00 pm – 1:00 pm Lunch break

1:00 pm – 2:30 pm

Part II. Computer Science Theory and Implementations

Chairs: Prof. Pinsky, Prof. Traikov

Session Optimization Solutions in Computer Science Theory

1. Representative Subsample as a LP Problem, Dimitar Atanasov, New Bulgarian University, Bulgaria
2. Ontology Design Approach Based on Model-Driven Architecture Principles, Chebanyuk, Olena,Artificial Intelligence Research Institute, Spanish National Research Council (IIIA-CSIC)), Gizun, Andrii, Taras Shevchenko National University of Kyiv, Ukraine.

3. Evolution of a Software Engineering Project Course: From Traditional Development to AI-Integrated Practice, Zhang, Yuting (Boston University)
4. A study of the software engineering process's complexity and its relationship with software quality, Dinev, Dobromir (NBU)
5. Autonomous UWB Infrastructure Mapping via Accumulative Ring Intersection, Stoev, Petko (Institute of Information and Communication Technologies Bulgarian Academy of Sciences); Krastev, Stoyko (Institute of Information and Communication Technologies Bulgarian Academy of Sciences); Ivanov, Vladimir (Institute of Information and Communication Technologies Bulgarian Academy of Sciences)
6. Cognitive Value Assessment of UML Sequence Diagrams: A Miller-Based Model with AI-Driven Experimental Validation, Chebanyuk, Olena, Sierra, Carles, Artificial Intelligence Research Institute of Spanish National Research Council, Spain

2:30 pm – 3:15 pm

Session ML Implementation in Financial Sector

Chairs: Prof. Vodenska and Assoc. Prof. Kostadinova

1. Data Leakage in Financial Machine Learning: A Taxonomy, Empirical Quantification, and Remediation Framework Using Cryptocurrency Markets, Pattnaik, Sarthak, Metropolitan College, Boston University), Jain, Chhayank, Arizona State University, Pinsky, Eugene, Metropolitan College, Boston University, USA
2. Adaptive Computational Scaling in Sparse Mixture-of-Experts via Entropy-Gated Thinking Budgets, Divyesh Jagetia, Boston University, Arrow Electronics, USA
3. AI and Machine Learning in Financial Fraud Detection: Defending Financial Systems in the Age of Adversarial AI, Vodenska, Irena, Chitkushev, Lou, Choi, Kyung-Shick, Boston University, USA

4 Nov 2026, Wednesday

8:00 am – 8:45 am

Session Security and Ethics in AI Implementations

Chairs: Prof. Alizadeh-Shabdiz, Farshid and Assoc. Prof. Rossitza Goleva

1. WikiFlow: Predicting Wikipedia Editor Dropout at Scale Using Distributed Machine Learning on Google Cloud, Meena, Aryan, Patel, Kunj Manish Kumar, Alizadeh-Shabdiz, Farshid, Boston University
2. Is Artificial Intelligence (AI) Technology Anti-Human? Ethics of the Relationship Between Machines and Humans, David Avishay (JCE - Azrieli College of Engineering – Jerusalem, Israel)
3. Intelligent System for Early Risk Assessment, Andreeva, Asya, Andreeva, Simona, Traykov, Metodi, Kostadinova, Hristina, New Bulgarian University, Bulgaria

8:45 am – 10:00 am

Session Optimization of the Algorithms in Edge-to-Fog-to-Cloud Continuum

Chairs: Prof. Kanabar and Assoc. Prof. Traikov

1. Minimum Spanning Tree Algorithms on Large Scale Random Networks, Giraldo Leiva, Nicolay Alfredo, New Bulgarian University, Bulgaria
2. Unsupervised Vibration Fault Detection Using Cepstrum-Based Feature Extraction and Mahalanobis Analysis, Kolev, Atanas, Gorbounov, Yassen, New Bulgarian University, Bulgaria, Chen, Hao, China University of Mining and Technology, China
3. Data-Driven Predictive Maintenance via Adaptive Hilbert-Huang Feature Extraction and XGBoost Classification, Kolev, Atanas, Gorbounov, Yassen, New Bulgarian University, Bulgaria, Chen, Hao, China University of Mining and Technology, China
4. Performance Analyses and Resource Usage Optimization of the Linux Dispatcher, Krustev, Alexander, Goleva, Rossitza, New Bulgarian University, Bulgaria
5. Audio Augmented Reality for Celestial Objects through Music-theoretic and Spatial Sonification, Suzuki, Hanna (Bedford High School)

10:00 am – 10:15 am Coffee break

10:15 am – 12:00 am

Session Computing Systems and AI Implementation in Well Being and Medicine

Chairs: Prof. Chikutchev and Prof. Gorbounov

1. CareVault: Design and Implementation of a Secure Information Management Prototype for Family Caregiving, Elentukh, Alex, Kerrigan, Caroline, Xu, Tianpeng, Laszlo, Michael, Sukhdeve, Pooja, Huang, Rongna, Boston University, USA
2. Sublexical Emotional Valence Recognition: A Biphone-Based Experimental Framework, Slavova, Velina, Dimitrov, Ventsislav, Uzunova, Zhuliyana, Kostadinov, Nikola, Serafimov, Boyan, Stoyanov, Ivaylo, Kodzhabashev, Mihail, New Bulgarian university, Bulgaria

3. Evaluating Predictive Models for Drug-Drug Interaction, Andreeva, Simona, Andreeva, Asya, Kostadinova, Hristina, Traykov, Metodi, New Bulgarian University, Bulgaria
4. Genetic Testing Utilization Among Ovarian Cancer Patients, Li, Jiarong (Boston University); Pronley, Edward (Boston University); ZHANG, Guanglan (Boston University); Chitkushev, Lou (Boston University)
5. Machine Learning for Asthma Prediction in Pediatric Outpatient Patients: Internal Validation, Calibration, and SHAP Interpretation, Tomov, Latchezar (New Bulgarian University); Mihaylova, Diana (New Bulgarian University); Lazova, Snezhina (Medical University -Sofia)
6. MA-CD-KT: Calibration-Centric Multi-Agent Knowledge Tracing with LLM-Guided Semantic Arbitration and Cognitive Diagnosis, Guo, Meixia (Lingnan University); Zhang, Xupeng (Beijing Language and Culture University); Dong, Chengzu (Lingnan University); Yu, Lisha (Lingnan University)
7. Assessment of Foundation Vision-Language Models on Dental Radiograph Interpretation, Atchibay, Saya (Boston University); Alchaar, Aiya (Boston University); Alizadeh-Shabdiz, Farshid (Boston University); Liao, Peixi (Boston University)

Closing remarks from Prof. Zlateva.