

Johns Hopkins University (Applied Physics Laboratory), Kossiakoff Center

Laurel, Maryland // Saturday, March 11, 2023

	Start Time	End Time	Duration
Registration and Coffee (30 min)	08:30	09:00	00:30
Introduction (15 min)	09:00	09:15	00:15
Keynote 1: Joseph McGettigan (30 min)	09:15	09:45	00:30
Keynote 2: Rosalyn Hobson Hargraves (30 min)	09:45	10:15	00:30
Break (15 min)	10:15	10:30	00:15
Keynote 3: Dwight Carr (30 min)	10:30	11:00	00:30
Keynote 4: Kathleen Deloughery (30 min)	11:00	11:30	00:30
Poster Session // Lunch Break // Campus Tour	11:30	13:10	01:40
Workshop (90 min) // <i>Parallel Sessions</i>	13:10	14:40	01:30
Break (10 min)	14:40	14:50	00:10
Full paper/WiP (120 min) // <i>Parallel Sessions</i>	14:50	16:50	02:00

(*All Times are US Eastern Time)

Virtual Attendees can listen to Keynotes, workshops, and paper presentations at the following URL. You will need to sign in if you have already registered, otherwise, you will need to sign up (Free). Zoom instruction is available at the following URL: www.ieee-ISEC.info

Keynote Speaker: 1

Joseph McGettigan

Director, USNA STEM Center for Education and Outreach

Talk Title: The Need for STEM Education and What You Can Do



Bio: Joe McGettigan retired from active duty in 2009 and has served as the Director of the US Naval Academy STEM Center for Education and Outreach since 2020. He was raised in Pennsauken New Jersey and attended the US Naval Academy with the class of 1980 graduating with a Bachelor's degree in Naval Architecture. His shipboard assignments were aboard the USS Miller (FF-1091) where he served as the Anti-submarine Warfare

Officer and the Auxiliaries and Electrical Officer, and the USS Belleau Wood (LHA-3) where he served as the Combat Systems Officer. He is a qualified Surface Warfare Officer and a qualified Engineering Duty Officer. His Shore assignments included Puget Sound Naval Shipyard, Officer in Charge of Mobile Technical Unit Fifteen, Naval Undersea Warfare Center, and numerous positions at Naval Sea Systems Command. His major acquisition assignments included Program Manager for the Advanced Combat Direction System and he served as the Program Manager for AEGIS foreign military sales managing sales with Japan, Spain, Norway, South Korea and Australia. He commanded the Surface Combat Systems Center in Wallops Island, VA, the Naval Surface Warfare Center in Dahlgren, VA, and was the Director of the Engineering and Weapons Division at the US Naval Academy. He retired after 30 years of service in 2009. Following his Military career, he became a Director for BAE Systems and then came back to Government service as a Division Director at Naval Sea Systems Command overseeing the Navy's technical authority. In 2012 he accepted a position as a Senior Vice President with Kratos Defense. He holds a Master's Degree from the Naval Postgraduate school in Undersea

Warfare Technology and a Master's Degree from the Naval War College in National Security and Strategic Affairs. At the USNA STEM Center we execute various outreach programs for students from K-12 as well as their teachers in an effort to get more of today's youth interested in pursuing engineering and science degrees in college. It has been recognized for many years now that there are not enough people with technical degrees to fill all of the positions that DoD has requiring those degrees.

Keynote Speaker: 2

Rosalyn Hobson Hargraves, Ph.D.

Division Director, Division of Undergraduate Education (DUE), Directorate for STEM Education (EDU), National Science Foundation

Talk Title: What we can do to promote Access, Equity, Innovation, and Excellence in Undergraduate STEM Education!



Bio: Dr. Rosalyn (Roz) Hobson Hargraves is Division Director for the Division of Undergraduate Education (DUE). The Division of Undergraduate Education, in the NSF Directorate for Education and Human Resources, strengthens STEM education at two- and four-year colleges and universities. Dr. Hargraves is a Professor of Electrical and Computer Engineering at Virginia Commonwealth University and previously served as an Intermittent Expert for NSF's Directorate for Education and Human Resources. She began her term as NSF division director for DUE on August 1, 2021. In addition to STEM education, Dr. Hargraves' research interests also include diversity, equity, and inclusion in higher education, machine learning, biomedical signal and image processing, and the role of science and technology in international development. Dr. Hargraves received her Bachelor's, Master's,

and Doctorate degrees in Electrical Engineering from the University of Virginia. During her 25 years at Virginia Commonwealth University (VCU), Dr. Hargraves co-founded the VCU College of Engineering Department of Electrical Engineering, and has served in numerous leadership roles, including Associate Vice President for Inclusive Excellence, the Director of the Virginia Commonwealth University - University of KwaZulu Natal International Partnership, Associate Dean in the College of Engineering, and Interim Co-chair in the School of Education Department of Teaching and Learning. Dr. Hargraves has published over sixty peer reviewed conference and journal publications, been awarded two patents, given over 60 lectures/seminars domestically and internationally and served on expert panels across the United States. She has consulted with private industry in the area of machine learning and co-founded a start-up, SPT (Signal Processing Technologies), based upon her research in biomedical image processing. She has been awarded sponsored research grants as PI, co-PI, or senior personnel totaling over \$25 M from federal, state, foundation, and industrial sources primarily in the area of STEM education and training. Throughout her career she has served on over 80 review committees, conference organizing committees, professional, university, school and department committees. Her professional service has included membership on two National Academies Committees, and she currently is elected to serve on the American Council on Education Council of Fellows board, the Bon Secours Richmond Health System Board, and as a Richmond Memorial Health Foundation Trustee.

Dr. Hargraves has been recognized nationally for her mentoring, teaching, leadership, and diversity initiatives. From 2019-2020 she was one of 38 academic leaders selected for the nationally renowned American Council on Education (ACE) Fellowship, the premier comprehensive leadership development program in American higher education. In 2003-2004 she served as an American Association for the Advancement of Science Diplomacy Fellow at the U.S. Agency for International Development (2003-2004). Among her numerous awards, she received the 2018 National Association for Ethnic

Studies Robert L. Perry Mentoring Award and 2006 Dr. Hargraves was named Engineer of the Year by the Richmond Joint Engineers Council.

Keynote Speaker: 3

Dwight Carr, Ph.D.

APL STEM Program Manager

Talk Title: The importance of developing the STEM Identity of vulnerable student populations



Bio: In 2011, to address our nation's critical challenge of creating a workforce educated and trained in science, technology, engineering, and mathematics (STEM), APL launched a STEM Program Management Office to help inspire, engage, and educate the next generation of STEM professionals. Led by Program Manager Dwight Carr, Ed. D., APL's STEM efforts are concentrated on providing students, parents, and teachers with substantial involvement with STEM professionals and the work they do. With APL since 2003, Carr has held successive technical positions as an electrical engineer, lead engineer, and project manager. Before joining APL, he was instrumental in establishing a manufacturing laboratory for the Gene Logic Genomics Corporation and served as a research fellow for the National Institutes of Health. Carr holds a doctorate degree in education and a master's degree in electrical and computer engineering, both from The Johns Hopkins University, and received his undergraduate degree in biology from Howard University, where he was a member of the National Golden Key Honor Society and the Beta Kappa Chi Honor Society.

Keynote Speaker: 4

Kathleen Deloughery, Ph.D.

Deputy, Enduring Sciences Branch, Technology Centers Division, DHS
Science & Technology Directorate

Talk Title: Why Public Perception Matters



Bio: Dr. Kathleen Deloughery is the Deputy for the Enduring Sciences Branch in the Technology Center Division at the DHS Science & Technology Directorate. In this role, she is responsible for overseeing a set of interrelated research activities across the Social Sciences Technology Center and the Hazard Awareness and Characterization Technology Center. These Technology Centers provide subject matter expertise and foundational research in the life, physical, and social sciences to support and strengthen preparedness and prevention of communities for current, future, and emerging disasters, threats, risks, or incidents, and improve their capabilities for effective mitigation, response, and recovery from such events. Dr. Deloughery analyzes and manages the personnel and funding resources of these Technology Centers and will identify and resolve unique issues related to those needs. Dr. Deloughery also serves as a subject matter expert on research efforts related to terrorism prevention, evaluation, and technology adoption.

Session Full-01

Track 1 — Full Papers 1

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ

Room Number: K-3 (Downstairs, First Floor)

MATLAB Image Processing for Plasma-Wound Interaction to Accelerate Healing and Sterilization

Akhil Agarwal (IntelliScience Institute & Research Intern at San Jose State University, USA); Aahan R Patel (IntelliScience Institute, USA)

Abstract

Paper

Slides

Video

1

Upvote

Flexible Submission Policy and Its Impact on Student Learning

Wenbing Zhao and Xiongyi Liu (Cleveland State University, USA)

Abstract

Paper

Slides

Video

0

Upvote

Design and Implementation of a Time Management Self-Help Mobile App for College Students

Wenbing Zhao (Cleveland State University, USA); Hanna Harb (Garfield Heights High School, USA)

Abstract

Paper

Slides

Video

1

Upvote

Integrating Multi-Professional Principles and Practices into the Medical Education Curriculum

Milan Toma, Faiz Syed and Lise McCoy (New York Institute of Technology College of Osteopathic Medicine, USA)

Abstract

Paper

Slides

Video

1

Upvote

Developing a Lab Experiment for Demonstrating the Performance of an Off-Grid Solar Array

Pooya Taheri (BCIT & SFU, Canada)

Abstract

Paper

Slides

Video

Virtual

1

Upvote

A Sustainable Development Goal for a Campus: LED Vertical Illumination for a Classroom

Enrique C Pajardo, Antony Kinyua and Dong H Kang (Morgan State University, USA)

Abstract

Paper

Slides

Video

Virtual

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Upvote

The Impact of Credits on Student Performance: A Case Study of Sri Lanka

Jagodage Dulangi Kanchana Rathnapala (University of Moratuwa & NONE, Sri Lanka); Amal Perera (University of Moratuwa, Sri Lanka); Vishaka Nanayakkara (Chalmers University of Technology, Sweden); Gayashan Amarasinghe (University of Moratuwa, Sri Lanka)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Development and Implementation of Natural Language Processing Communication and Virtual Reality-Based Technologies in Educational Applications

Saurabh Sanjay Saindhane (Indian Institute of Information Technology, Tiruchirappalli (IIIT), India); Venkanna U (Teacher, India); Debanjan Das (IIIT Naya Raipur, India)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Track 2 — Full Papers 2

Conference

2:50 PM — 4:50 PM EST

Local

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location

Room Number: K-4 (Downstairs, First Floor)

Successful Model for a Course-based Undergraduate Research Experience (CURE) in Mathematics and STEM during the First Two Years of College

Guillermo Alvarez Pardo (Cuesta College & National University of Distance Education (UNED), USA)

Abstract

Paper

Slides

Video

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Upvote

Active Learning on Neural Networks through Interactive Generation of Digit Patterns and Visual Representation

Dong Jeong (University of the District of Columbia, USA); Jin-Hee Cho (Virginia Tech, USA); Feng Chen (University of Texas at Dallas, USA); Audun Jøsang (University of Oslo, Norway); Soo-Yeon Ji (Bowie State University, USA)

Abstract

Paper

Slides

Video

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Upvote

Review of Integrated STEM+C e-Learning Platforms to Support Underrepresented Students

Ella Neading, Teresa M. Ober and Paul R Brenner (University of Notre Dame, USA)

Abstract

Paper

Slides

Video

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Upvote

Examining the impact of experiment-centric pedagogy on students' critical thinking, test anxiety, and motivation while using hands-on technology through pre- and post-activity questionnaires

Frank Efe (Morgan State University, Baltimore, MD, USA.)

Abstract

Paper

Slides

Video

0

Upvote

A Collaborative Learning and Support System for STEM Education and Learning Analytics

Qizhi Xu and Beijia Zhang (University of Science and Technology of China, China); Jing Wang (Anhui Xiyue Educational Technology Co. Ltd., China); Xiang Liu (Educational Testing Service, USA); Mengxiao Zhu (University of Science and Technology of China, China)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Quantum Serious Games to Enhance Quantum Literacy within Computational Thinking 2.0 Framework

Apostolos Xenakis, Ilias K. Savvas, Costas Chaikalis, Maria Avramouli, Kalliopi Theodoropoulou and Maria Sabani (University of Thessaly, Greece)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Teaching Scientific Experiments through Online Video Lectures: An Eye-Tracking Research

Qizhi Xu, Nuo Chen and Juanjuan Tu (University of Science and Technology of China, China); Xiang Liu (Educational Testing Service, USA); Mengxiao Zhu (University of Science and Technology of China, China)

Abstract

Paper

Slides

Video

Virtual

1

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A Sustainable Development Goal: A SMART Sustainable Electrical System for an Urban Community

Enrique C Pajardo and Dong H Kang (Morgan State University, USA)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Track 3 — Full Papers 3

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ

Room Number: K-5 (Downstairs, First Floor)

Challenges and Applications of AI in Healthcare: A Review

Arav Kumar (Monroe Township High School 200 Schoolhouse Rd Monroe Township NJ 08831, USA); Savya Vats (Bergenfield High School 80 S Prospect Ave Bergenfield NJ 07621, USA); Anvi Kumar (Monroe Township High School 200 Schoolhouse Rd Monroe Township NJ 08831, USA); Avimanyou K Vatsa (Fairleigh Dickinson University, Teaneck, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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[Upvote](#)

Enumeration of Birds using Video Segmentation for a Better Understanding of Bird Behaviors

Avimanyou K Vatsa (Fairleigh Dickinson University, Teaneck, USA); Dohyun Lee, Benen Sullivan, Daniel Hogan and Amishi Mittal (Bergen County Academies 200 Hackensack Ave Hackensack NJ 07601, USA); Elise Morton and Harald Parzer (Fairleigh Dickinson University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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Teaching an Introductory Programming Course with Project Based Collaborative Learning in a Virtual Learning Environment

Mahmudur Rahman and Roshan Paudel (Morgan State University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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Realistic Examples of Mathematical Physics at the Civil Engineering Program

Huber Nieto-Chaupis (Peru & Universidad Autónoma del Perú, Peru)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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On enabling remote hands-on Computer Networking Education: the NITOS testbed approach

Nikos Makris and Virgilios Passas (University of Thessaly & CERTH, Greece); Apostolos Apostolaras (University of Thessaly & The Centre for Research & Technology Hellas, CERTH, Greece); Theodoros Tsourdinis (University of Thessaly, Greece & Sorbonne University, France); Ilias Chatzistefanidis and Thanasis Korakis (University of Thessaly, Greece)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

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Evaluating the Effectiveness of Equitable K-12 Professional Learning Access in Computer Science

Jean Chu, Yulia Kumar, Daehan Kwak, James Novotny, Pankati Patel and Patricia A Morreale (Kean University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

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Environmental Education Through Activities: Teacher Practices of Including Students' Lived Experiences

Tanaya Vyas and Girish Dalvi (Indian Institute of Technology Bombay, India)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

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Machine Learning-Based Relative Performance Analysis for Breast Cancer Prediction

Ranjit Chandra Das and Fatema Tabassum Liza (Florida State University, USA); Partha Pratim Pandit (Miami University, USA); Afia Farjana (University of South Dakota, USA); Fariha Tabassum (Western Michigan University, USA); Madhab Chandra Das (University of Information Technology and Science, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

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Track 4 — Full Papers 4

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ📍

Room Number: K-6 (Downstairs, First Floor)

An Immersive Curriculum to Develop Computational Science and Research Skills in a Cohort-Based Internship Program

Abstract

Paper

Slides

Video

Erik Johnson, Marisel Villafañe-Delgado, Danilo Symonette, Katherine-Ann Carr, Marisa Hughes, Julie Burroughs, Sydney Floryanzia and Martha Cervantes (Johns Hopkins University Applied Physics Laboratory, USA); William Gray-Roncal (Johns Hopkins University Applied Physics Laboratory & Preparation Meets Opportunity Foundation, USA)

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Upvote

A Predictive Analysis of Imposter Phenomenon in STEM Education

Abstract

Paper

Slides

Video

Katherine-Ann Carr (Johns Hopkins University Applied Physics Laboratory, USA); Aishwarya Jayabharathi (Johns Hopkins University, USA); Jacalynn Sharp (Johns Hopkins Applied Physics Laboratory, USA); Julie Burroughs (Johns Hopkins University Applied Physics Laboratory, USA); Jorge Rivera (Johns Hopkins University, Applied Physics Laboratory, USA); William Gray-Roncal (Johns Hopkins University Applied Physics Laboratory & Preparation Meets Opportunity Foundation, USA)

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Upvote

Strategies for Enhancing Retention of Information Technology Students

Abstract

Paper

Slides

Video

Tacksoo Im, Hyesung Park, Wei Jin, Sonal Dekhane, Sebastien Siva and Rahaf Barakat (Georgia Gwinnett College, USA)

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Upvote

Retrocomputing in Contemporary Integrative STEM Education

Abstract

Paper

Slides

Video

Zhemín Zhang (Rensselaer Polytechnic Institute, USA)

0

Upvote

CPS-TR: An Online Training Platform to Address Fourth Industrial Revolution Workforce Needs

Abstract

Paper

Slides

Video

Pratik Satam, Carter Philipp, Sicong Shao and Soheil Salehi (University of Arizona, USA)

Virtual

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Upvote

Virtual Reality Museum Application for the Arts

Abstract

Paper

Slides

Video

Joshua Maddy and Husnu S Narman (Marshall University, USA)

Virtual

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Upvote

A comparative study of machine learning approaches for heart stroke prediction

Abstract

Paper

Slides

Video

Fatema Tabassum Liza (Florida State University, USA); Madhab Chandra Das (University of Information Technology and Science, USA); Partha Pratim Pandit (Miami University, USA); Afia Farjana (University of South Dakota, USA); Fariha Tabassum (Western Michigan University, USA); Md Jahidul Islam (Tuskegee University, USA); Ranjit Chandra Das (Florida State University, USA)

Virtual

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Upvote

Adapting Cybersecurity Teacher Training Camp to Virtual Learning

Abstract

Paper

Slides

Video

Joshua Maddy, Eric M Dillon and Husnu S Narman (Marshall University, USA)

Virtual

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Upvote

Session Full-05

Track 5 — Full Papers 5

Conference ☹

2:50 PM — 4:50 PM EST

Local ☹

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ☹

Room Number: K-7 (Downstairs, First Floor)

Gamification FrAmework for promoting Computational Thinking (GFACT)

Yuri M Bermudez (Universidad del Valle, Colombia); Maria Trujillo (Univerdad del Valle, Colombia); Juan Francisco Díaz Frias (Universidad del Valle, Colombia)

Abstract

Paper

Slides

Video

Virtual

0

Upvote

Design and Development of a Sustainability-focused Hybrid Course for Undergraduates Based on Open Educational Resources

Mohammad U. Mahfuz (University of Wisconsin-Green Bay, USA)

Abstract

Paper

Slides

Video

Virtual

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Upvote

A meta-analysis on the effect of internal communication

Jieqi Wang (Nanyang Technological University, Singapore)

Abstract

Paper

Slides

Video

Virtual

0

Upvote

Multi-Lingual DALL-E Storytime

Noga Mudrik (Johns Hopkins University, USA); Adam Charles (The Johns Hopkins University, USA)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Disparities in Digital Access at the Intersectionality of Race and Sexual Orientation

Jeffrey B Chavis (University of South Carolina & Johns Hopkins University Applied Physics Lab, USA)

Abstract

Paper

Slides

Video

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Upvote

Basic Mathematical Methodologies as Tool to Interpret Pandemic Data on the Sight of Freshman Engineering Students

Huber Nieto-Chaupis (Peru & Universidad Autónoma del Perú, Peru)

Abstract

Paper

Slides

Video

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Upvote

Comparing the Performance of Classification Algorithms for Melanoma Skin Cancer

Avimanyou K Vatsa (Fairleigh Dickinson University, Teaneck, USA); Arav Kumar (Monroe Township High School 200 Schoolhouse Rd Monroe Township NJ 08831, USA); Savya Vats (Bergenfield High School 80 S Prospect Ave Bergenfield NJ 07621, USA); Anvi Kumar (Monroe Township High School 200 Schoolhouse Rd Monroe Township NJ 08831, USA)

Abstract

Paper

Slides

Video

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Upvote

Detecting encrypted traffic activities and patterns in ZigBee network Data

Jeffrey S Chavis (Johns Hopkins University Applied Physics Laboratory, USA); Joy Falaye (JHUAPL & Morgan State University, USA); Kevin Kornegay (Morgan State University, USA)

Abstract

Paper

Slides

Video

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Upvote

Track 6 — Full Papers 6

Conference

2:50 PM — 4:50 PM EST

Local

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location

Room Number: K-8 (Downstairs, First Floor)

Integrating Scrum Project Management in Information Technology Capstone Course

Shuting Xu, Shuhua Lai and Lissa Pollacia (Georgia Gwinnett College, USA)

Abstract

Paper

Slides

Video

Virtual

0

Upvote

System Dynamics Modeling Optimization of STEM Education and Outreach Career Pipelines for Students in Underrepresented Communities

Daniel C Appel (US Air Force Research Laboratory, Kirtland AFB, NM & AEGIS Technologies Group Inc., USA); Mo Mansouri (Stevens Institute of Technology & University of South-Eastern Norway, USA)

Abstract

Paper

Slides

Video

0

Upvote

An Inclusive Approach to Hands-on STEM programs in Underserved Secondary Schools: An Epistemological STEAM Model

Martha Omoekpen Alade (Ambrose Alli University Ekpoma & Women in Technology in Nigeria, Nigeria)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Best State Estimate for the Phase Angles of Busbars in Power Systems via Circuit Modeled with DC Load Flow

Ronak Ali (University of Kentucky USA, USA); Shujaat Ali (Tianjin University, China); Tariq Pirzada (Nazeer Hussain University, Pakistan); Syed Hadi Hussain Shah (Muhammad Ali Jinnah University Karachi, Pakistan); Madad Shah (IBA Sukkur, Pakistan); Saeed Ahmed Khan (Sukkur IBA University, Pakistan)

Abstract

Paper

Slides

Video

Virtual

1

Upvote

Discussion on the Mathematics Behind Extinctions: A Detailed Statistical Essay on the Population Density of Northern White Rhinoceros

Manan Roy Choudhury (Maulana Abul Kalam Azad University of Technology, West Bengal & Government College of Engineering and Textile Technology, Serampore, India); Ishan Banerjee (Chennai Mathematical Institute, India)

Abstract

Paper

Slides

Video

Virtual

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Upvote

The trends of Research in STEM education in high scholarly journals

Hisham Barakat Hussein (King Saud University, Saudi Arabia)

Paper

Slides

Video

1

Upvote

Integrating Real-Life Examples into Software Engineering Instruction: A Case Study of Software Product Families

Swapna S. Gokhale (University of Connecticut, USA)

Abstract

Paper

Slides

Video

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Upvote

A Pragmatic Approach To Training The Next Generation Cyber-Physical Workforce

Jeffrey S Chavis, Daniel P Syed, Prathista Annapareddi and Ian Chu (Johns Hopkins University Applied Physics Laboratory, USA)

Abstract

Paper

Slides

Video

0

Upvote

E-learning Utilization Based on Language

Emad Abu-Shanab and Alaa Abuhuzaima (Qatar University, Qatar)

Abstract

Paper

Slides

Video

Virtual

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Upvote

Representation of Distribution Network for Teaching Power Flow Analysis- A Case Study of an Academic Campus

Suresh H Jangamshetti (Basaveshwar Engineering College (Autonomous), India); Sangamesh Goudappanavar (Basaveshwar Engineering College, Bagalkot India, India)

Abstract

Paper

Slides

Video

0

Upvote

Local Energy Marketplace Agents-based Analysis

Ameni Boumaiza (ALRAYYAN & QEERI, Qatar)

Abstract

Paper

Slides

Video

0

Upvote

Track 7 — Works-In-Progress 1

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ

Room Number: K-221 (Upstairs, Second Floor)

Research Platform to Promote the Evolution of STEM Project Experiences

Ramakrishnan Sundaram (Gannon University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

Virtual

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[Upvote](#)

Brief overview of embedded systems for Industry 4.0 Applications and Networks

Ian Hernandez Morales and Erick Petersen (Universidad Galileo, Guatemala);
Oscar Rodas (Universidad Galileo & Tesla Lab, Guatemala)[Abstract](#)[Paper](#)[Slides](#)[Video](#)

Virtual

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[Upvote](#)

Fostering Computer Science Education through Expert Interviews

Victor I Robila (Hunter College High School, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

Virtual

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[Upvote](#)

River Floods Early Warning System (SATGAL)

Mario Carpio (Universidad Galileo, Guatemala); Oscar Rodas (Universidad Galileo
& Tesla Lab, Guatemala); Erick Petersen (Universidad Galileo, Guatemala)[Abstract](#)[Paper](#)[Slides](#)[Video](#)

Virtual

0

[Upvote](#)

A Practice-Based Approach in Programmable Logic Controller Education Using Elevator Control System

Shahrokh Sani (SUNY Canton, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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[Upvote](#)

Developing Mini VR Game Engines as an Engaging Learning Method for Digital Arts & Sciences

Angelos Barmpoutis, Wenbin Guo and Ines Said (University of Florida, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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[Upvote](#)

WIP: Interdisciplinary Teaching via Hands-on Practice in Cybersecurity

Qiaoyan Yu (University of New Hampshire, USA); Dean Sullivan (UNH, USA);
Diliang Chen, Dongpeng Xu, Karen Jin and Joshua Calzadillas (University of New
Hampshire, USA)[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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[Upvote](#)

Adjustable Platform for Exploring Soft Robotic Gripper Design

Janelle P Clark (University of Massachusetts Lowell, USA); Emily LaBelle and
Domenic Carrillo (UMass Lowell, USA); Holly Yanco (University of Massachusetts
Lowell, USA)[Abstract](#)[Paper](#)[Slides](#)[Video](#)

0

[Upvote](#)

Hours of Work, Minutes of Code: An Investigation Into Software Development Applications and Computer Science Education for Engineers and Scientists

Ana Zoe Rasking (Johns Hopkins University Applied Physics Laboratory, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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[Upvote](#)

Track 8 — Works-In-Progress 2

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ

Room Number: K-223 (Upstairs, Second Floor)

Question Assessment Recommendation System Based on Personalization using Collaborative Filtering and Long-Short Term Memory

Hartawan Bahari Mulyadi (University of Jember, Indonesia); Saiful Bukhori (Universitas Jember, Indonesia); Gayatri Dwi Santika (Jember University, Indonesia)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

0

[Upvote](#)

Extracting occupancy information from sensor data using machine learning: LU-PRISM Program

Sanish Rai (Longwood University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

0

[Upvote](#)

A Framework for Evaluating Parental Controls for Streaming Services

Amanda Moctezuma and Stefan Robila (Montclair State University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

0

[Upvote](#)

Microcontroller Based Platforms For STEM Education

Kam C Sum (Alquanta Ltd., Singapore); Kei-Hin Ng, Wang-Kong Lam and Ho-Yin Chui (Alphotonics Limited, Hong Kong); Chiu F Li (Cognitio College Kowloon, Hong Kong)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

1

[Upvote](#)

An Innovative Scheme for College Ranking: A Socialization Perspective

Binxi Xie (Emory University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

0

[Upvote](#)

Survey of K-8 Teachers: Intersecting Computer Science Education, Diversity, and Inclusion

Sumi Hagiwara (Montclair State University, USA); Katherine Herbert (1 Normal Ave & Montclair State University, USA); Minsun Shin, Vaibhav Anu, Rebecca Goldstein, Patricia Virella and Gerald Wang (Montclair State University, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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[Upvote](#)

Competencies assessment: indicators for a covariance structural model for STEM

Leopoldo Julian Lechuga Lopez (New York University Abu Dhabi, United Arab Emirates); Olga Lopez (Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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A Framework for Introducing Artificial Intelligence to K-12 Students

William E Husen (University of Wisconsin, USA); Mehdi Roopaei (University of Wisconsin - Platteville, USA)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)

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Track 9 — Works-In-Progress 3

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ

Room Number: K-225 (Upstairs, Second Floor)

Data-driven Analysis of Elementary School Students' Computational Thinking through Scratch Projects

Guang Yang, Daisuke Saito, Hironori Washizaki and Yoshiaki Fukazawa (Waseda University, Japan)

[Abstract](#)[Paper](#)[Slides](#)[Video](#)[Virtual](#)

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Facilitating Students' Abstract and Computational Thinking Skills Using Virtual Reality

Xinze Wang, Daisuke Saito, Hironori Washizaki and Yoshiaki Fukazawa (Waseda University, Japan)

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Parallel Bayesian Estimation of an IRT Model using Multiple GPUs

Yanyan Sheng (University of Chicago, USA); William S Welling (Texas A & M University, USA); Michelle M. Zhu (Montclair State University, USA)

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An In-Situ Behavior Measurement Approach using Organic Text Communication Toward Monitoring Student Success

Maya Albayrak (The Johns Hopkins University Applied Physics Laboratory & Carnegie Mellon University, USA); William Gray-Roncal (Johns Hopkins University Applied Physics Laboratory & Preparation Meets Opportunity Foundation, USA)

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Toward a More Equitable and Effective Process for Student-Mentor Cohort Assignment

Carah Katz (JHU Applied Physics Laboratory, USA); Martha Cervantes (Johns Hopkins University Applied Physics Laboratory, USA); William Gray-Roncal (Johns Hopkins University, USA)

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Quantum Sensing for Anti-Submarine Warfare

Benjamin E Nathan (Johns Hopkins University - Applied Physics Laboratory, USA)

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A3Sat: Using CubeSat Emulators to Broaden Advanced Participation in STEM Education

John D Moore (Institute for Earth Observations, USA & NASA GLOBE Mission Earth, USA); Maxwell Friedman and Sriram Elango (Institute for Earth Observations, USA); Jin Kang (United States Naval Academy, USA); Christine Maceo (USNA, USA)

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Low-cost hearing aid using Mobile App and Bluetooth headset

Mohana Bhuvanagiri (Acton-Boxborough Regional High School, USA); Srikar Bhuvanagiri (RJ Grey Junior High School, USA)

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Track 10 — Works-In-Progress 4

Conference ⓘ

2:50 PM — 4:50 PM EST

Local ⓘ

Mar 11 Sat, 2:50 PM — 4:50 PM EST

Location ⓘ

Room Number: K-227 (Upstairs, Second Floor)

Integrating Cyber Physical System Security Concepts in Computer System Security Curriculum

Heena Rathore (Texas State University, USA)

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Virtual

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Enhancing a Multi-Disciplinary Introduction to Engineering Course Through Course-Based Undergraduate Research

Henry Griffith, Christopher Saldivar and Michelle Baland (San Antonio College, USA)

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Specific Absorption Rate Lessening Through A Combined EBG-Cells

Mohammad El Ghabzouri (Mohammed First University, Faculty of Sciences, Oujda, Morocco); Abdenacer ES-salhi (Université Mohamed 1er, Morocco); Paulo Mendes (University of Minho, Portugal)

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An Expression-Oriented Approach to Programming Education

Enzo Alda (Lakebolt Research, USA); Jorge Baralt-Torrijos (Simón Bolívar University, Venezuela)

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Legal Protection to Avoid Plagiarism Behavior Among Students

Muhammad Haitsam (Telkom University, Indonesia)

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Energy consumption and future forecast of IoT devices in networks

Kevin A Echeverria (University Galileo & Galileo, Guatemala)

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Middle School Teachers' Instructional Practices to Maximize Learning Using integrated STEM

Paul Asunda, Fatima Perwaiz and Hillary O Omoze (Purdue University, USA)

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WiP: A wearable system for detecting falls using a sound sensor

Fabián A Hernández (Universidad Galileo, Guatemala); Oscar Rodas (Universidad Galileo & Tesla Lab, Guatemala); Erick Petersen (Universidad Galileo, Guatemala)

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Chinese Urban Subculture of Misinformation: Ideology Formation of the Sanhe gods

Tiffany Huang (Britannica International School of Shanghai, USA)

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Workshops and Industry

Session Workshops-01

Track 11 — Workshops 1

Conference ⓘ	1:10 PM — 2:40 PM EST
Local ⓘ	Mar 11 Sat, 1:10 PM — 2:40 PM EST
Location ⓘ	Room Number: K-3 (Downstairs, First Floor)

Engineering Simulations through a Language Lens
Lauren Mauel (UW System, USA); Cody Steuck (ELL Advocates, USA)

Abstract

Paper

Slides

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Session Workshops-02

Track 12 — Workshops 2

Conference ⓘ	1:10 PM — 2:40 PM EST
Local ⓘ	Mar 11 Sat, 1:10 PM — 2:40 PM EST
Location ⓘ	Room Number: K-4 (Downstairs, First Floor)

Digital Ethics in a Global Learning Society
Donna Schaeffer (Marymount University, USA)

Abstract

Paper

Slides

Video

Virtual

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Session Workshops-03

Track 13 — Workshops 3

Conference ⓘ	1:10 PM — 2:40 PM EST
Local ⓘ	Mar 11 Sat, 1:10 PM — 2:40 PM EST
Location ⓘ	Room Number: K-5 (Downstairs, First Floor)

Digital Ethics and e-Portfolios
Donna Schaeffer (Marymount University, USA); Patrick Olson (National University, USA)

Abstract

Paper

Slides

Video

Virtual

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Session Workshops-04

Track 14 — Workshops 4

Conference ⓘ	1:10 PM — 2:40 PM EST
Local ⓘ	Mar 11 Sat, 1:10 PM — 2:40 PM EST
Location ⓘ	Room Number: K-6 (Downstairs, First Floor)

Design and Testing of Dielectric Barrier Discharge Torches for Wound Healing and Sterilization
Krishnaveni Parvataneni (BASIS Independent Silicon Valley, USA)

Abstract

Paper

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Session Workshops-05

Track 15 — Workshops 5

Conference 🕒

1:10 PM — 2:40 PM EST

Local 🕒

Mar 11 Sat, 1:10 PM — 2:40 PM EST

Location 📍

Room Number: K-7 (Downstairs, First Floor)

STEM approach for Human Rights activism based on Wireless Technologies - Including an analysis of Diversity and Inclusion - from the 1940s predicting the future in 2030

Paulo Sergio Rufino Henrique (CGC/ Aarhus University, France, Paris)

Abstract

Paper

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Video

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Session Workshops-06

Track 16 — Workshops 6

Conference 🕒

1:10 PM — 2:40 PM EST

Local 🕒

Mar 11 Sat, 1:10 PM — 2:40 PM EST

Location 📍

Room Number: K-8 (Downstairs, First Floor)

Toward Scalably Empowering Trailblazing Students through Inclusive and Supportive Mentoring, Systematized Training, and Data-Driven Assessment

William Gray-Roncal (Johns Hopkins University, USA)

Abstract

Paper

Slides

Video

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Poster Session 1

Conference

9:00 AM — 4:50 PM EST

Local

Mar 11 Sat, 9:00 AM — 4:50 PM EST

Drone-Aided Sensor Networks for Soil Contamination Monitoring

Lizbeth He (USA)

Abstract

Poster

Video

Virtual

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Detection of *Lycorma delicatula* using Thermal Imagery and UAVs

Joseph E Miller (PRISMS, USA)

Abstract

Poster

Video

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A Biomedical Device for Separating Fluids from Tissues - FluidXtractor

Arthur Yang (Marriotts Ridge High School, USA); Feng Ouyang (Johns Hopkins University / Applied Physics Lab, USA)

Abstract

Poster

Video

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SOS.net: A Robust System Harnessing the Power of AI to Expedite Search and Rescue Missions

Nesara Shree (Portland State University, USA)

Abstract

Poster

Video

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Design Calculations of a Biochair for Patients Requiring Leg Rehabilitation

Pranav R Bellanagari (IntelliScience Institute & San Jose State University, USA)

Abstract

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Design and Testing of A Multifaceted DBD Plasma Torch

Karthik Hari (Santa Teresa High School & San Jose State University, USA); Krishnaveni Parvataneni (BASIS Independent Silicon Valley, USA)

Abstract

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Impact of Training/Testing data ratio on ML Model Accuracy in predicting Cardiac Patient's Mortality

Siddhartha Shibi (Washington High School & Intellisience Training Institute, USA); Vaishali Jha (Evergreen Valley High School, USA)

Abstract

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MATLAB Based Meta-Analysis Code Providing Common Perspective by Synthesizing Data from Various Sources

Himani Jha (Intellisience Research Institute, USA); Rina M Weaver (Intellisience Institute & San Jose State University, USA); Ambika Palleti (Evergreen Valley High School, USA)

Abstract

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Automating Conventional Intravenous Stands for Easier Hospital Infusion

Yihan Chen (PRISMS (School), USA)

Abstract

Poster

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Building a Standing Mobility Device to Help Handicapped People

Yihan Chen (PRISMS (School), USA)

Abstract

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Using human body tracking technology to analyze the double axel in figure skating

Wanyun Qu (High School, USA)

Abstract

Poster

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Instrumentation and Control of a Fluidic Muscle-Based Exoskeleton Device for Leg Rehabilitation

Rishit Agrawal (Evergreen Valley High School & IntelliScience Training Institute and San Jose State University, USA); Sahana Chowlur (Silver Creek High School, USA & IntelliScience Institute, San Jose State University, USA)

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Domestic Wind Power Apparatus

Man Kin Cheng (Bishop Hall Jubilee School & BHJS, Hong Kong); Andrew Wong (Secondary School & Bishop Hall Jubilee School, Hong Kong); Shing Chan (Secondary School & Bishop Hall Jubilee School, China); Christopher Tang (Bishop Hall Jubilee School, Hong Kong)

Abstract

Poster

Video

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Muscle-Inspired Home Automation System

Andrew Yuting Lu (Oyster River Middle School, USA); Femi Olugbon (University of New Hampshire, USA)

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Immersive Experiences in the Omniverse Channel

Adrik Ray (Huber Street Elementary School, USA)

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Modulation and Noise Effects in a Free-Space Optical Communication System

Joseph M Bailor (Johns Hopkins University Applied Physics Laboratory, USA); Jeremy Chung (Johns Hopkins University Applied Physics Laboratory & Winston Churchill High School, USA); Jonathan C Moses (Mount Saint Joseph High School & Johns Hopkins University Applied Physics Laboratory, USA); Jose Martinez Lopez, Jade Sim and Jony Teklemariyam (Johns Hopkins University Applied Physics Laboratory, USA)

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Investigating the role of polyrhythmic music in attention-based neurological therapies using EEG Sensors

Sumanth Mahalingam (Evergreen Valley High School, USA)

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Detecting a system of Binary Black Holes using the Einstein Toolkit

Agneya D Pooleery (USA)

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An Artificial Intelligence Approach to Fetal Health Risk Prediction

Vighnesh U Nair and Devika Gopakumar (Dougherty Valley High School & IntelliScience Training Institute, USA); Krishnaveni Parvataneni (BASIS Independent Silicon Valley, USA)

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Geometry and Origami

Rishi Balaji (RJGrey Junior High School, USA)

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Plantis: Floating Greenhouse

Simeon Wan To Suen, Ka Lun Tang, Hoi Ching Leung and Zi You Jasmine Siaw (Bishop Hall Jubilee School, Hong Kong); Man Kin Cheng (Bishop Hall Jubilee School & BHJS, Hong Kong)

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The Importance of Experiential Learning

Yingyi Wei (China)

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Simulation of Basketball Shooting Process and Investigation of the Optimal Shooting Speed and Angle Using Mathematical Models

Enze Danny Zhang (Beijing 80 High School, China); Rui Wang and Haoran Zhang (China)

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Local Teachers' Satisfaction with and Perceptions of Voluntary Teaching Programs and Their Instructional Practices in Rural China

SiYu Liu (Shenzhen College of International Education, China)

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Performance Improvement of Table Tennis Server and Intelligent Training System

Lijia Shen (High School, China)

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Robotic prosthetics

Man Hin Cheung, Hoi Lam Wong, Ka Yip Li and Anson Ngan (Hong Kong); Man Kin Cheng (Bishop Hall Jubilee School & BHJS, Hong Kong)

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Improving chess player skills with studying tactics comparison between chess Grandmaster and chess engines

Jinshang Li (PRISMS High School, USA)

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Effective Methods of Detection and Prevention of Falling Over by Using AI

Qinuo He (PRISMS High School, USA)

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Designing a Sensor Embedded Tracksuit using Arduino MCUs and Accelerometers to Model Kinesiology of Athletes

Shaunak M Marathe (JHU APL, USA)

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Genomic Curation for Improved Marine Mammal eDNA Classification

Christopher Li (The Johns Hopkins University Applied Physics Laboratory, USA); Olive J Lara (Johns Hopkins University Applied Physics Laboratory, USA); William Joseph Ross III (John Hopkins Applied Physics Laboratory)

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Precision Medicine in Lung Cancer

Yuchen Ye (China)

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Flow of beads in a viscous film on vertical fibers

Leonardo Dobrinsky (USA)

[Abstract](#)[Poster](#)[Video](#)

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Academic Stress, Parental Expectations, and Sleep: A Daily Diary Study Among Adolescents

Melinda Yu (USA)

[Abstract](#)[Poster](#)[Video](#)[Virtual](#)

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Advancing Knee Arthroscopic Surgeries with Endoscopic and B Mode Ultrasound Imaging

Catherine Ren (Havergal College, Canada); Yining Zhang (University of Toronto Schools, Canada)

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Toward an Energy Saving Smart Campus - IoT Smart Light Switch

Tsz-Him Ma and Yuen-Ning Poon (Cognitio College Kowloon, Hong Kong)

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Can Deep Learning Models Trained on Small and Imbalanced Ultrasound Image Samples Detect Polycystic Ovary Syndrome (PCOS)?

Sophia Y Liu (Cherry Hill High School East, USA)

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General Optical Properties of Two-Dimentional Materials & Applications in Optoelectronics

ZiRui Yu (High School, China)

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Deciphering the Indus Script: Decoding Missing and Unclear Indus signs and Identifying Anomalous Indus texts from West Asia using Markov Chain Language Models

Varun Venkatesh (USA)

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Enhancing STEM Education to Communities with Low Access to STEM Resources Christine DiMenna (Gilman School & QuarkNet, USA); Arya Kazemnia, Aman Garg, Leo Wang, Abraham Karikkineth and Daniel Koldobskiy (Gilman School, USA)	Abstract	Poster	Video	0 Upvote
Mathematics Model of Honey Bee Colony Qingyuan Yao (China)	Abstract Virtual	Poster	Video	0 Upvote
Reimagining Seawalls: Exploring Shoreline Protection Methods with Minimal Surface Inspired Seawalls Alex Yang and Michael Wen (USA)	Abstract	Poster	Video	0 Upvote
Evaluating the Effectiveness of Design Processes in Mechanical Engineering Applications Diana N Omar (Johns Hopkins University Applied Physics Laboratory, USA)	Abstract Virtual	Poster	Video	1 Upvote
Integration of Quantum Computing with Deep Learning Amin Boukari (Caesar Rodney High School, USA)	Abstract Virtual	Poster	Video	0 Upvote
Machine Learning Predictive Model to Reduce the Harmful Environmental Effects of Pesticide Usage in Agriculture Kareem Boukari (Caesar Rodney High School & Delaware State University, USA)	Abstract	Poster	Video	0 Upvote
Simulating Quantum Magnetism on Noisy Quantum Computers: An Analysis of Trotter-Suzuki and qDRIFT Peter C Seelman (Johns Hopkins University Applied Physics Laboratory & Glenelg Country School, USA); Taohan Lin (Johns Hopkins University Applied Physics Laboratory & Thomas Jefferson High School for Science and Technology, USA); Milan Tenn and Samuel N Manolis (Johns Hopkins University Applied Physics Laboratory, USA)	Abstract	Poster	Video	0 Upvote
Novel Medical Sensor Design For Mass Casualty Triage and Trauma Care Diya Sharma (Johns Hopkins University Applied Physics Laboratory, USA)	Abstract	Poster	Video	0 Upvote
Quantum Noise Mitigation Via Randomized Compiling Abstract Harry Rathbun (Johns Hopkins University Applied Physics Laboratory, USA); Alex J Zhang (Johns Hopkins Applied Physics Laboratory, USA); Colin La and Kenji Ishi (Johns Hopkins University Applied Physics Laboratory, USA)	Abstract	Poster	Video	0 Upvote
First Ever Whole Genome Sequencing and De Novo Assembly of the Freshwater Angelfish Pterophyllum Scalare Indeever Madireddy (USA)	Abstract	Poster	Video	0 Upvote
Chat Bot Implementation on Mattermost Servers Using APIs Taylor Ann Benning (Johns Hopkins University Applied Physics Laboratory, USA)	Abstract	Poster	Video	0 Upvote
Min-Max Optimal Matching Yibo Cheng (USA)	Abstract Virtual	Poster	Video	0 Upvote
The strategy formation process of publicly listed firms under the "Double Reduction" Policy - a pilot study of factors impacting firm survival Leming Liu (China); Lufan Wang (Florida International University, USA)	Abstract	Poster	Video	0 Upvote
Paving the on-ramp to AI learning in the classroom James Murray (Holy Ghost Preparatory School, USA)	Abstract	Poster	Video	1 Upvote

The "Rock Candy Approach for Lithium Extraction" Qixiang Feng (USA); Zhiyong Ren (Princeton University, USA); Qiang Chen (Princeton International School of Math and Science, USA)	Abstract	Poster	Video	<div>0</div> Upvote
Beauty or the Beast: Understanding the Durability of Nail Polishes Anwita Wadekar (St. Bernadette School, USA)	Abstract	Poster	Video	<div>0</div> Upvote
Federated Learning with Prioritized Data Sample Selection Rebekah Wang (West Windsor-Plainsboro High School South, USA)	Abstract Virtual	Poster	Video	<div>0</div> Upvote
Study on Projects of Natural Restoration of Rivers in Korea and Other Countries Sahng-Won Lee (Seoul International School, Korea (South)); Richard Kyung (CRG-NJ, USA)	Abstract Virtual	Poster	Video	<div>0</div> Upvote
Modeling atmospheric ablation of iron meteors undergoing thermal decomposition Jonathan Wu (Applied Physics Lab, USA)	Abstract Virtual	Poster	Video	<div>0</div> Upvote
Study on the Electron Carriers in the Active Layers to Improve Photocurrent in Polymer Solar Cells Geonwoo Bae (Choate Rosemary Hall, USA); Richard Kyung (CRG-NJ, USA)	Abstract Virtual	Poster	Video	<div>0</div> Upvote
Study on Hospitality Industry Trends and Changing Demands Keonha Bae (Choate Rosemary Hall, USA); Richard Kyung (CRG-NJ, USA)	Abstract Virtual	Poster	Video	<div>0</div> Upvote
Predicting Patient Hospital Admission for Triage with Machine Learning: An Analysis of Emergency Service Index Data Rishi Mulchandani (Johns Hopkins University Applied Physics Laboratory, USA); Soma S Hebbar (Johns Hopkins University Applied Physics Laboratory (JHUAPL), USA); Jayant Maheshwari (Johns Hopkins University Applied Physics Lab (JHUAPL), USA)	Abstract	Poster	Video	<div>0</div> Upvote
Wearable ultrasound devices for blood pressure measurement: a simulation study King Ho Guo (UWC CSC Chang Shu College, Japan)	Abstract Virtual	Poster	Video	<div>1</div> Upvote
Engineering Kits to Prevent Summer Learning Loss Anna R Rosner (Albemarle High School, USA)	Abstract	Poster	Video	<div>0</div> Upvote
Commercial truck parking conceptual design Trung Q Tchiong (Upper Darby School District, USA); Nelson Dennis (Main Author, USA)	Abstract Virtual	Poster	Video	<div>0</div> Upvote
The Ethics and Privacy Risks of Artificial Intelligence in Education: Balancing the Benefits and Concerns with More AI Cynthia C Zhang (Canada)	Abstract	Poster	Video	<div>0</div> Upvote
A Novel Pre-Hospital Indoor Rescue Drone For Locating Cardiac Arrest Patients at Home Instantly and Delivering Emergency Medication Under Surveillance Before an EMS Arrives Max Du (Canada)	Abstract	Poster	Video	<div>0</div> Upvote
Wireless Networked Motion Planning Control for a QBOT2 Saami Ali (Cold Spring Harbor High School, USA)	Abstract	Poster	Video	<div>0</div> Upvote