# The 5th International Workshop on

# "Digitization and E-Inclusion in Mathematics and Science 2024" DEIMS2024

# **Program (tentative on 19 December 2023)**

# 15 February 2024 (Thursday)

12:30 -13:20 **Registration** 

**13:20 - 13:30 Opening Address** 

# 13:30 - 14:20 Keynote Lecture 1

Georgios Kouroupetroglou (National and Kapodistrian University of Athens)
"Modeling Content Accessibility Service Provision in Higher Education"

### 14:30 - 15:30 Session A1

Bharti Kaushik, Latika Khullar and Bhawna Malik

"Pre-Assessment Holistic Screening Tool (PRASHAST) for disabilities at school" (remote)

Naoki Hirabayashi, Masakazu Iwamura, Zheng Cheng, Kazunori Minatani and Koichi Kise "VisPhoto: Photography for People with Visual Impairments via Omnidirectional Imaging Post-Production"

#### 15:30 - 16:00 Coffee Break

# 16:00 - 17:30 Session A2

Bernhard Stöger, Klaus Miesenberger and Walther Neuper

"Employing Theorem Prover Technology to Develop an Accessible and Inclusive Mathematical Learning Environment" (remote)

Michael Schäffler, Barbara Henn, Volker Sorge and Dorine in't Veld

"Using LaTeX in Schools: Simplifying Inclusive STEM Education" (partially remote)

Frank Mittelbach and Ulrike Fischer

"Enhancing LaTeX to Automatically Produce Tagged and Accessible PDF"(partially remote)

# 17:30 - 18:00 Special Session for Demonstration

# 16 February 2024 (Friday)

#### 09:00 - 10:30 Session B1

Roman Toda, Jing Mu, Youqiang Wu and Neil Soiffer

"PDF Document Object Model Support for Math" (remote)

Charles Frankston, A. Jonathan R. Godfrey, Shamsi Brinn, Alison Hofer, and Mark Nazzaro "HTML papers on arXiv: why it's important, and how we make it happen" (remote)

Zenaib Ali, David Austin and Volker Sorge

"Accessible Papers from Source: The Quest for the Holy Grail"

# 10:30 - 11:00 Coffee Break

### 11:00 - 12:00 Session B2

Ross Moore

"Fully Accessible PDF/UA documents. Case study: NOAA fish stock reports" (remote)

# T. Kamae and T. Koide

"A method to overcome graphical communication difficulties between the visually impaired and sighted in higher education and advanced profession"

#### 12:00 - 13:30 Lunch

# 13:30 - 14:20 Keynote Lecture 2

Masakazu Suzuki (NPO: Science Accessibility Net)

"New Accessibility Platform 'Chatty Library'"

# 14:30 - 15:30 Session C1

Oğuz Akkaya

"Accessible Digital Mathematics Library" (remote)

#### Akio Fujiyoshi

"A Tool for Improving Readability of Japanese PDF Files for the Print Disabled and People with Foreign Roots"

# 15:30 -16:00 Coffee Break

#### 16:00 - 17:30 Session C2

Yukiko Yamaguchi and Akemi Matsumoto

"Development of Assistive Learning Materials for Disabled Children, Which Make Online Video Contents Distributed by Zoos/Aquariums Be Barrier-Free"

# Cristian Bernareggi

"Teaching primary school mathematics to students with sight impairments in Sierra Leone" (remote)

Mathieu Gaborit, Dominique Archambault and Minna Puustinen

"Help seeking from students with a VI in a mainstream classroom setting. How can digital tools support help seeking?" (remote)

# 17:30 - 18:00 Special Session for Demonstration

#### 18:30 -20:30 Banquet

# 17 February 2024 (Saturday)

#### 09:00 - 10:30 Session D1

Gopi Swamy Veerendra, M Balakrishnan, Volker Sorge, and Abhishek Baghel

"Generating Image Description from Labels and Surrounding Text"

John Gardner and Dan Gardner

"Color in STEM Diagrams: Solving an Accessibility Challenge"

Tetsuya Watanabe

"Classification of Tactile Maps for Blind and Visually Impaired People"

# 10:30 - 11:00 Coffee Break

# 11:00 - 12:00 Session D2

Muhammad Shoaib, Donal Fitzpatrick and Ian Pitt

"Accessibility Features of Developmental Platforms: Towards Developing Accessible Mobile Applications with Cross-Platform, Research Challenges and Opportunities"

Vashkar Bhattacharjee and Asif Sadique

"Exclusion to Inclusion: A comparative study of Accessibility of Banks and Financial Institutions (BFi) of Bangladesh"

# 12:00 - 12:10 Closing Remark

# 13:30 - Excursion around Tokyo