2023 IEEE 35th International Conference on Software Engineering Education and Training (CSEE&T 2023)

Tokyo, Japan 7 – 9 August 2023



IEEE Catalog Number: CFP23027-POD ISBN:

979-8-3503-2203-3

Copyright © 2023 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP23027-POD

 ISBN (Print-On-Demand):
 979-8-3503-2203-3

 ISBN (Online):
 979-8-3503-2202-6

ISSN: 1093-0175

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



2023 IEEE 35th International Conference on Software Engineering Education and Training (CSEE&T) CSEET 2023

Table of Contents

Message from General Chairx
Message from Program Chairs xii
Organizing Committee xiv
Program Committeexv
Steering Committeexvii
Keynotes Messagexviii
Session 1: [Research Track Full paper] Measurement and Requirements Engineering
Method to Semi-Automatically Identify and Measure Unmet Requirements in Learner-Created
state Machine Diagrams
Value Based Prioritization of Requirements in Software Engineering Education
Students' Perceptions of Integrating a Contribution Measurement Tool in Software Engineering Projects
Session 2: [Research Track Full paper] Peer Review and Modeling
The Daily Smirk: A Preliminary Prototype for Continuous Peer Assessment of Team-Based Projects
Advancing Object-Oriented Model-Driven Software Engineering Pedagogy

Calibrated Peer Reviews in Software Engineering Instruction: Experiences and Application
Session 3: [Research Track Full paper] Agile and Project Management
Training Students to Choose Their Agile Practices and Tools
Impact of Key Scrum Role Locations in Student Distributed Software Development Projects
Learning Software Project Management by Simulation – Experience and Recommendations from 20 Years of Teaching
Session 4: [Research Track Full paper] Teaching Practice Is Online Teaching Dead After COVID-19? Student Preferences for Programming Courses
Paulsen (Technical University of Munich), and Stephan Krusche (Technical University of Munich)
How are Smart Phones Used by Students in Higher Education? Exploring the Intersection of Digital Learning Activities and Personal Technology
Session 5: [Journal First Track and Research Track Short paper]
The Field of Requirements Engineering Education
Myths and Facts About a Career in Software Testing: The Perspectives of Students and Practitioners

(Extended Abstract)
Paolo Ciancarini (University of Bologna, Italy), Daniel Russo (University of Aalborg, Denmark), and Marcello Missiroli (University of Bologna, Italy)
Envisioning Software Engineer Training Needs in the Digital era Through the SWEBOK V4
Prism Hironori Washizaki (Waseda University, Japan), Maria-Isabel Sanchez-Segura (Universidad Carlos III de Madrid, Spain), Juan Garbajosa (Universidad Politécnica de Madrid, Spain), Steve Tockey (Construx Software, United States), and Kenneth E Nidiffer (George Mason University, United States)
Session 6: [Research Track Short paper] Data Science and AI
Developing a Data Science Course to Support Software Engineering Students
Toward AI-Assisted Exercise Creation for First Course in Programming Through Adversarial Examples of AI Models
W.K. Chan (City University of Hong Kong, Hong Kong), Y.T. Yu (City University of Hong Kong, Hong Kong), Jacky W. Keung (City University of Hong Kong, Hong Kong), and Victor C.S. Lee (The University of Hong Kong)
PSAbot: A Chatbot System for the Analysis of Posts on Stack Overflow
Investigating the Use of AI-Generated Exercises for Beginner and Intermediate Programming Courses: A ChatGPT Case Study
Recommendations to Create Programming Exercises to Overcome ChatGPT
Session 7: [Industrial Track and Research Track Short paper] SE Pedagogy
Design of a Graduate Level Software Engineering Program with a Product Perspective and a Product Management Specialization

On Evidence-Based Feedback Practices in Software Engineering for Continuous People Improvement
Miguel Morales-Trujillo (University of Canterbury, New Zealand) and Matthias Galster (University of Canterbury, New Zealand)
An Experience Report on English Medium Instruction (EMI) Based Computing Education in a Faculty of Engineering in Japan
Session 8: [Research Track Short paper] Applied SE
Experiences With Gap-Bridging Software Engineering Industry-Academia Collaborative Education Program
Education Program
Experiences and Lessons Learned from Real-World Projects in Software Engineering Subject 173 Yan Hern Ryan Sim (Singapore Institute of Technology - University of Glasgow), Zhi Zhan Lua (Singapore Institute of Technology - University of Glasgow), Kahbelan Kalisalvam Kelaver (Singapore Institute of Technology - University of Glasgow), Jia Qi Chua (Singapore Institute of Technology - University of Glasgow), Ian Zheng Jiang Lim (Singapore Institute of Technology - University of Glasgow), Qi Cao (University of Glasgow, UK), Sye Loong Keoh (University of Glasgow, UK), and Li Hong Idris Lim (University of Glasgow, UK)
Introduction to Programming Using Interactive Learning
Poster and tool papers Session
Proposal of a Support System for Visualization of Acquired Skills Using iCD in Project-Based Learning for Software Development and How to Acquire its Data 183 Hane Kondo (Tokyo Gakugei University, Japan), Hiroaki Hashiura (Nippon Institute of Technology, Japan), and Atsuo Hazeyama (Tokyo Gakugei University, Japan)
AI-assisted university programming education in practice
Investigation of Early Detection Methods for Dropout Students by Using LMS log Data
Preliminary Study on the Reproducibility of Fix Templates in Static Analysis Tool

Platforms to GitHub in a Software Development PBL
Evaluation-Driven Online Learning Mode: Design and Practice
Teaching Software Technology and Social Economics with Hybrid Methods
IoT-Enhanced Remote Proctoring: A New Paradigm for Remote Assessment Integrity
Towards Assessment of Practicality of Introductory Programming Course Using Vocabulary of Textbooks, Assignments, and Actual Projects
Workshop abstract
Workshop "Business Programming" - Critical Factors from Zero to Portable GUI Programming in 4 Hours
Workshop on Bad Practice Smells in Novice Software Engineering Education
Author Index 203