2025 IEEE/ACM International Workshop on Designing Software (Designing 2025)

Ottawa, Ontario, Canada
27-28 April 2025

IEEE

IEEE Catalog Number: CFP25VM2-POD
ISBN: 979-8-3315-1492-1

Copyright © 2025 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:	CFP25VM2-POD
ISBN (Print-On-Demand):	979-8-3315-1492-1
ISBN (Online):	979-8-3315-1491-4

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

2025 IEEE/ACM International Workshop on Designing Software (Designing)

Designing 2025

Table of Contents

Message from the Chairs ..... **vii**

Designing 2025

Documenting and Communicating Design Decisions 1
Steven Fraser (Innoxec) and Dennis Mancl (MSWX Software Experts)

Assessing LLMs for Front-end Software Architecture Knowledge 6
Luiz Pedro Franciscatto Guerra (University of Victoria, Canada) and Neil Ernst (University of Victoria, Canada)

Using Case Studies to Investigate Design Practices in Industry: Proposed Workshop Activity 11
David Budgen (Durham University)

Integrating User Experience Design and Agile Software Development Processes 13
Fayaz Suleman (University of North Carolina at Charlotte, USA) and David Wilson (University of North Carolina at Charlotte, USA)

Building MVPs: An Experience Report of a Software Engineering Capstone Course 17
Melissa Sahl (University of Maryland Baltimore County, USA) and Mohammad Samarah (University of Maryland Baltimore County, USA)

What is new when talking about sustainable software architectures? 25
Elisa Yumi Nakagawa (University of São Paulo, Brazil) and Rick Kazman (University of Hawaii, USA)

Curating Model Problems for Software Designing 33
Mary Shaw (Carnegie Mellon University, USA) and Marian Petre (Open University, UK)

Adaptive abstraction with AI for managing software antipatterns throughout the software lifecycle 35
Roberto Andrade (Universidad San Francisco), Jenny Torres (Escuela Politecnica Nacional), Pamela Flores (Escuela Politecnica Nacional), Erick Cabezas (Escuela Politecnica Nacional), and Jorge Segovia (Escuela Politecnica Nacional)

A Structured Approach to Accessibility in Software Development Lifecycle 39
Md Hasan Saju (Ontario Tech University), Sanaa Alwidian (Ontario Tech University), Partha Mazumder (Ontario Tech University), and Akramul Azim (Ontario Tech University)

Assessing Compliance of Software System Designs to Laws, Regulations, and their Underlying Values 47
Agnieszka Marczak-Czajka (University of Notre Dame), Katherine Dearstyne (University of Notre Dame), and Jane Cleland-Huang (University of Notre Dame)

Design Obligations for Software, with Examples from Data Abstraction and Adaptive Systems 55
Mary Shaw (Carnegie Mellon University, USA)

Author Index **59**