ICCBR Doctoral Consortium 2023

Preface

The fourteenth ICCBR Doctoral Consortium (DC) took place in July 2023 in Aberdeen, Scotland. Since ICCBR2009, the DC has been an integral component of the annual Case-Based Reasoning conference, inviting Ph.D. candidates to submit their research statements for discussion with senior members of the community.

Ph.D. candidates applied to the program by submitting summaries of their doctoral research, which included the problems they are addressing, their proposed research plans, and progress made to date. This year, we received a total of five submissions, all of which were accepted. Each accepted applicant was paired with a mentor who helped refine their research summaries based on reviewer feedback. The updated research summaries of the candidates are included in this volume, and we are proud to continue the tradition with a cohort of five doctoral students from three different countries.

The DC activities commenced on Sunday, July 16th with a two-hour session where mentees and mentors met to discuss the research statements and make final preparations for the presentations on Monday. On Monday, July 17th, all five contributions were presented orally. Each student delivered a 15-minute presentation on their work, followed by a discussion led by their respective mentors.

The submitted research statements primarily focused on two core topics: explainability and maintenance. The first group of papers explored the explainability of CBR systems or the use of CBR to explain other AI models. Prateek Goel investigated the relationship between the performance and interpretability of CBR systems. Zachary Wilkerson presented his research on leveraging and modifying deep learning systems to generate high-quality features for case-based retrieval. Betül Bayrak used CBR to generate post-hoc explanations for black-box models. The second set of papers addressed ways to improve the performance of CBR systems. Adwait Parsodkar discussed the influence of the circularity of a CBR system's tasks, such as retrieval, adaptation, and maintenance, on its reliability, while Brian Schack presented four case-base maintenance strategies.

We would like to express our gratitude to the AI Journal for their support of the DC. With assistance from the ICCBR2023 organizers, we received funding that enabled us to waive registration fees and cover accommodation for DC participants. Additionally, we extend our appreciation to the eleven PC members who provided detailed and valuable feedback on the research statements.

We would like to thank all the students, mentors, and program committee members for their hard work and dedication in making the DC a resounding success.

July 2023   Kerstin Bach
Aberdeen

Program Committee

- David Aha, Naval Research Laboratory, USA
- Ralph Bergmann, University of Trier, Germany
- Isabelle Bichindaritz, State University of New York at Oswego, USA
- Sutanu Chakraborti, Indian Institute of Technology Madras, India
- Sarah Jane Delany, Technological University Dublin, Ireland
- Michael Floyd, Knexus Research, USA
- David Leake, Indiana University, USA
- Mirjam Minor, Goethe University Frankfurt, Germany
- Stefania Montani, Università del Piemonte Orientale, Italy
- Antonio Sanchez, University Complutense of Madrid, Spain
- Rosina Weber, Drexel University, USA

Mentee-Mentor Pairings

Mentee	Mentor
Prateek Goel (Drexel University, USA)	Nirmalie Wiratunga (RGU Aberdeen, Scotland)
Zachary Wilkerson (Indiana University, USA)	Isabelle Bichindaritz (SUNY Oswego, USA)
Betül Bayrak (NTNU, Norway)	Belen Diaz Agudo & Marta Caro Martinez (University Complutense of Madrid, Spain)
Adwait Parsodkar (IIT Madras, India)	David Leake (Indiana University, USA)
Brian Schack (Indiana University, USA)	David Aha (NRL, USA)

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