ICCBR 2019 Doctoral Consortium

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Preface

This year marks the eleventh anniversary of the ICCBR Doctoral Consortium (DC). The DC was designed to nurture PhD candidates by providing them with opportunities to obtain feedback on their research, future work plans, and career objectives from senior case-based reasoning (CBR) researchers and practitioners. We are proud to carry on the tradition with a cohort of ten doctoral students from seven different countries.

PhD candidates who applied to the program submitted summaries of their doctoral research. In their research summaries, they detailed the problems they are addressing, outlined their proposed research plans, and described progress to date. Accepted applicants were paired with mentors who helped them to refine their research summaries in light of reviewer feedback. The updated research summaries, which appear in this volume, were then orally presented at the ICCBR DC on September 8-9, 2019 in Otzenhausen, Germany.

This year's participants presented a broad array of ongoing CBR research. Deepika Verma discussed the use of CBR to improve the classification of physical activities from body-worn sensor data. Glenn Forbes studied the monitoring of health conditions from sensors in Smart Homes. Christian Zeyen presented his work on interactive assistance for scientific workflow modeling. Christopher L. Bartlett explained his research on using prototypes to classify novel cases in microarray analysis. Anbarasu Sekar discussed how to exploit relationships among cases and the user's feedback in conversational case-based recommender systems. Brian Schack presented three case base maintenance strategies beyond case deletion to improve the performance of CBR systems. Jèrôme Cerutti studied the problem of identifying and implementing actions to protect drinking water sources based on past experiences. Venkatsampath Raja Gogineni described the creation of autonomous explainable agents using case-based explanations, behavior adaptation, and casual understanding. Jakob Michael Schoenborn studied different types of explanations used in explainable AI and how to select the best one for a particular user. Finally, Diana Sofia Lora Ariza presented her work on dynamically adapting the difficulty of a game to improve the player's game experience.

Students and *Mentors*

Christopher L. Bartlett   State University of New York at Oswego, USA
Mirjam Minor   *Goethe University Frankfurt, Germany*

Jèrôme Cerutti   Laval University, Canada
Klaus-Dieter Althoff   *University of Hildesheim / DFKI, Germany*

Glenn Forbes   Robert Gordon University, UK
Barry Smyth   *University College Dublin, Ireland*

Diana Sofia Lora Ariza   Universidad Complutense de Madrid, Spain
Michael W. Floyd   *Knexus Research Corporation, USA*

Venkatsampath Raja Gogineni   Wright State University, USA
David W. Aha   *Naval Research Laboratory, USA*

Brian Schack   Indiana University, USA
Isabelle Bichindaritz   *State University of New York at Oswego, USA*

Jakob Michael Schoenborn   University of Hildesheim Germany
David B. Leake   *Indiana University, USA*

Anbarasu Sekar   Indian Institute of Technology Madras, India
Jean Lieber   *LORIA, France*

Deepika Verma   NTNU, Norway
Anders Kofod-Petersen   *NTNU, Norway*

Christian Zeyen   University of Trier, Germany
Antonio A. Sánchez-Ruiz   *Universidad Complutense de Madrid, Spain*

Program Chairs

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Sarah Jane Delany   Dublin Institute of Technology, Ireland
Anders Kofod-Petersen   Norwegian University of Science and Technology, Norway
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