Preface

The South African Centre for Artificial Intelligence Research (CAIR) is a grouping of researchers from several disciplines and universities with a broad range of interests in AI. For the past five years, one of the collaborative activities of CAIR has been the annual Forum for AI Research, where matters of common interest are discussed by CAIR members. Since CAIR represents a range of disciplines (computer science, engineering, philosophy, information science, statistics and others) it has been a particularly fruitful forum for sharing ideas. Discussions have taken various formats, and in November 2018 it was decided that a more formal conference would be appropriate for the growing body of research output being produced by the South African AI community.

An open call for proposals was therefore circulated, and a Programme Committee constituted from senior CAIR members and other researchers with relevant interests. Contributions were solicited in five tracks (Applications of AI, Ethics and AI, Knowledge representation, Machine learning, Other topics in AI), and authors were given the opportunity to submit full papers, extended abstracts, or summaries of work in progress.

A total of 72 submissions were received, and full-paper submissions were blind reviewed by at least two independent reviewers from the relevant discipline. From these submissions, 20 papers were accepted as full papers. In addition, 34 submissions were accepted as work in progress, and 10 as extended abstracts (of work under review or published elsewhere).

It is a pleasure to thank the organisers for arranging this conference, programme committee members for ensuring that an appropriate level of rigour is maintained (while also encouraging emerging research), and especially the authors for providing the wide range of ideas that will be the core of this inaugural conference. We trust that some of the ideas herein will be of interest to each reader of these proceedings.

Etienne Barnard & Marelie Davel, Editors

Senior programme committee:
Chair: Etienne Barnard, North-West University
Alta de Waal, University of Pretoria
Anban Pillay, University of Kwazulu-Natal
Arina Britz, Stellenbosch University
Aurona Gerber, University of Pretoria
Deshen Moodley, University of Cape Town
Emma Ruttkamp-Bloem, University of Pretoria
Louise Leenen, University of the Western Cape
Marelie Davel, North-West University
Tommie Meyer, University of Cape Town

Programme committee
Andries Engelbrecht, Stellenbosch University
Anne Gerdes, University of Southern Denmark

Ben Herbst, Praelexis
Benjamin Rosman, CSIR
Bertram Haskins, Nelson Mandela University
Bigomokero Antoine Bagula, University of the Western Cape
Bruce Watson, Stellenbosch University
Charl van Heerden, Saigen
Clement Nyirenda, University of the Western Cape
Daniel van Niekerk, superQuery
Edgar Jembere, University of Kwazulu-Natal
Eduardo Fermé, University of Madeira
Febe de Wet, CSIR
Gavin Rens, University of Cape Town
Giovanni Casini, University of Luxembourg
Henriette Harmse, EMBL-EBI
Herman Kamper, Stellenbosch University
Inger Fabris-Rotelli, University of Pretoria
Jan Buys, University of Cape Town
JP van Deventer, University of Pretoria
Ken Halland, University of South Africa
Kody Moodley, Maastricht University
Lisa Kirkland, University of Pretoria
Mandlenkosi Gwetu, University of Kwazulu-Natal
Mehrdad Ghaziasgar, University of the Western Cape
Olasupo Ajayi, University of Lagos
Omowunmi Isafiade, University of the Western Cape
Patrick Marais, University of Cape Town
Rennie Naidoo, University of Pretoria
Serestina Viriri, University of Kwazulu-Natal
Sihem Belabbes, Artois University
Thipe Modipa, University of Limpopo
Tian Theunissen, North-West University
Vincent C Müller, Technical University of Eindhoven, University of Leeds