# Lecture Notes in Artificial Intelligence 12498

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Max Bramer · Richard Ellis (Eds.)

# Artificial Intelligence XXXVII

40th SGAI International Conference on Artificial Intelligence, AI 2020
Cambridge, UK, December 15–17, 2020
Proceedings

Springer

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ISSN 0302-9743 ISSN 1611-3349 (electronic)
Lecture Notes in Artificial Intelligence
ISBN 978-3-030-63798-9 ISBN 978-3-030-63799-6 (eBook)
https://doi.org/10.1007/978-3-030-63799-6

LNCS Sublibrary: SL7 – Artificial Intelligence

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# Preface

This volume, entitled Artificial Intelligence XXXVII, comprises the refereed papers presented at the 40th SGAI International Conference on Innovative Techniques and Applications of Artificial Intelligence (AI 2020), held in December 2020, in both the technical and the application streams. The conference was organized by the British Computer Society Specialist Group on Artificial Intelligence (SGAI). Because of the COVID-19 pandemic the event was held as a virtual conference using video-conferencing software.

The technical papers included present new and innovative developments in the field, divided into sections on neural nets and knowledge management, and machine learning. This year's Donald Michie Memorial Award for the best refereed technical paper was won by a paper entitled "Exposing Students to New Terminologies While Collecting Browsing Search Data" by O. Zammit (Middlesex University, Malta), S. Smith (Middlesex University, London, UK), D. Windridge (Middlesex University, UK), and C. De Raffaele (Middlesex University, Malta).

The application papers included present innovative applications of AI techniques in a number of subject domains. This year, the papers are divided into sections on Industrial Applications, Advances in Applied AI, and Medical and Legal Applications. This year's Rob Milne Memorial Award for the best refereed application paper was won by a paper entitled "Partial-ACO Mutation Strategies to Scale-up Fleet Optimisation and Improve Air Quality" by Darren M. Chitty (Aston University, UK).

The volume also includes the text of short papers in both streams presented as posters at the conference.

On behalf of the conference Organizing Committee we would like to thank all those who contributed to the organization of this year's program, in particular, the Program Committee members, the Executive Program Committees, and our administrators Mandy Bauer and Bryony Bramer.

September 2020

Max Bramer
Richard Ellis

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