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Neamat El Gayar · Edmondo Trentin · Mirco Ravanelli · Hazem Abbas (Eds.)

Artificial Neural Networks in Pattern Recognition

10th IAPR TC3 Workshop, ANNPR 2022 Dubai, United Arab Emirates, November 24–26, 2022 Proceedings



Editors
Neamat El Gayar
Heriot-Watt University
Dubai, United Arab Emirates

Mirco Ravanelli Concordia University Montreal, QC, Canada Edmondo Trentin Universita' di Siena Siena, Italy

Hazem Abbas Ain Shams University Cairo, Egypt

ISSN 0302-9743 ISSN 1611-3349 (electronic) Lecture Notes in Artificial Intelligence ISBN 978-3-031-20649-8 ISBN 978-3-031-20650-4 (eBook) https://doi.org/10.1007/978-3-031-20650-4

LNCS Sublibrary: SL7 - Artificial Intelligence

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Preface

This volume contains the papers presented at the 10th IAPR TC3 workshop on Artificial Neural Networks for Pattern Recognition (ANNPR 2022), held at Heriot-Watt University, Dubai, UAE, during November 24–26, 2022. ANNPR 2022 followed the success of the ANNPR workshops of 2003 (Florence), 2006 (Ulm), 2008 (Paris), 2010 (Cairo), 2012 (Trento), 2014 (Montreal), 2016 (Ulm), 2018 (Siena), and 2020 (Winterthur). The series of ANNPR workshops has acted as a major forum for international researchers and practitioners from the communities of pattern recognition and machine learning based on artificial neural networks.

Among the 24 submitted manuscripts, the Program Committee of the ANNPR 2022 workshop selected 16 papers for the scientific program, organized in regular oral presentations. Each paper was reviewed by at least two reviewers with a single-blind process. The workshop was enriched by two keynotes: "Advances and Paradigms in Deep Learning" given by Michael S. Lew, Leiden University, Netherlands, and "Evolutionary algorithms and neural networks: a match made in heaven?" given by Michael Lones, Heriot-Watt University, UK.

The workshop would not have been possible without the help of many people and organizations. First of all, we are grateful to all the authors who submitted their contributions to the workshop. We thank the members of the Program Committee and the many additional reviewers for performing the difficult task of selecting the best papers from a large number of high-quality submissions. The help of Kayvan Karim, from Heriot-Watt University in Dubai, who created and managed the ANNPR 2022 website, deserves a particular mention. Special thanks go to the School of Mathematical and Computer Sciences and the local organizing team from Heriot-Watt Dubai Campus for all the arrangements related to hosting ANNPR 2022 on their premises. ANNPR 2022 was supported by the International Association for Pattern Recognition (IAPR), the IAPR Technical Committee on Neural Networks and Computational Intelligence (TC3), and Heriot-Watt University, Dubai, UAE. Finally, we wish to express our gratitude to Springer for publishing our workshop proceedings within their LNCS/LNAI series. We hope that readers of this volume may enjoy it and get inspired by its contributions.

September 2022

Neamat El Gayar Edmondo Trentin Mirco Ravanelli Hazem Abbas

Organization

ANNPR 2022 was organized by the School of Mathematical and Computer Sciences, Heriot-Watt University, Dubai, UAE.

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