

Preface

This volume contains the papers presented at DARE 2015: The Third International Workshop on Data Analytics for Renewable Energy Integration, which was held in Porto, Portugal, in September 2015 and was hosted by ECML PKDD (the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases).

Climate change, the depletion of natural resources, and rising energy costs have led to an increasing focus on renewable sources of energy. Much research has been devoted to advancing technologies for extracting energy from these sources. However, a separate concern that is equally important is the efficient and cost-effective storage and distribution of this energy. Even more importantly, a realistic solution to these objectives would also need to be compatible with existing energy infrastructures.

The challenge of renewable energy integration is an inherently multidisciplinary one and depends heavily on robust and scalable computing techniques. In particular, the domains of data analytics, pattern recognition, and machine learning have much to offer in this field. Examples of relevant research topics include the detection of faults, the forecasting of electricity supply and demand, demand response applications, and many others. DARE 2015 provided a forum for researchers working in the various related domains to present and discuss their findings and to share their respective experiences.

We are very grateful to the organizers of ECML PKDD 2015 for hosting DARE 2015, the Program Committee members for their time and assistance, and Masdar Institute of Science and Technology and MIT for their support of this timely and important workshop. Finally, we would also like to thank the authors for their valuable contributions to DARE 2015.

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Papers

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