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Preface to the Special Issue on *Surveying the Advances in Computer Sciences and Engineering* guest edited by Naresh Yadhav

This is the second Special Issue of our quarterly journal that we owe to the efforts of Dr Naresh Yadhav. The issue has been in preparation since the beginning of the year 2020, so strongly marked by the worldwide epidemics. The dimensions of the effort can be illustrated by the fact that after the Call for Papers had been sent around, altogether 23 papers were submitted. The Guest Editor addressed exactly 100 referees, asking them to evaluate these papers, and, by the end of the year 2020, finally only eight papers could be accepted for publication in our quarterly, after the reviews, provided by the group of 27 referees, and the subsequent modification rounds, which, in fact, took quite some time and additional effort, also from the editorial team.

This Special Issue contains papers, all of which originate from India, and which, to a large extent, are focused on providing surveys on the recent developments in a number of narrower domains, associated with the advances of contemporary science. These narrower domains, at the same time, are primarily those, in which the scientific and technological advance is especially spectacular and/or is expected to be of very high importance to the economy and the society.

An attentive Reader shall easily notice that several of the papers present very similarly tailored reviews of journal papers and conference lectures, published mainly during the last 5-6 years, the similarity pertaining to the way, in which the survey is structured, and the aspects of the studies surveyed that are shown in the papers. Thus, for instance, the number of 50 such items, subject to review, appears in most of the papers in this issue. In some cases, though, the actual reference lists are longer, or even much longer, since the respective Authors attempt to take a broader view of the domain, including the studies that are, actually, not subject to the review scheme.

The aspects that are accounted for in the reviews include primarily (i) the methods (techniques, technologies) utilized, (ii) the criteria (metrics) used to evaluate the performance of the proposed and investigated techniques, and, inside those (iii) the achievement levels against some selected measures; (iv) the data sets (or circumstances) used for testing the approaches proposed; (v) the

gaps and/or the challenges, related to the methodologies reported, as perceived by the respective Authors, (vi) the timing of the publication; and, often, (vii) the broadly conceived source (publisher) of the papers surveyed. It must be admitted that the surveys do not go very deeply into the substantive content of the studies considered, but this was the assumed format and the concept of this collection of reviews.

Some of the papers present own proposals of the respective Authors, also active in the given domain of scientific and engineering endeavor, but most of them are restrained to the very surveys, although there are cases, in which the Authors indicate what is their intended future way to go within the domain, in view of their own interests and competences, and the persisting needs, relative to the quality of the solutions proposed and the state-of-the-art situation in the domain.

Now, concerning the subject matter of the papers and hence of this Special Issue, let us enumerate the domains that compose this subject matter. Thus, the particular papers deal with the questions, related to data analysis and processing, such as the highly standard theme of data classification, but, this time, in the context of big data, or, another standard theme, namely data aggregation, but, here, with respect to the functioning of the sensor networks, with an obvious reference to the Internet of Things (IoT). Yet another theme, having close association with those mentioned is the object retrieval from the images and videos, also appearing in conjunction with the more general all-pervading intelligence and the IoT-related techniques.

Further, in the actually very same context, we have also a review of authentication schemes, this time directly related to the IoT functioning. Likewise, there is paper devoted to privacy preserving in the cloud environment, focusing particularly on the highly important health-related systems and functionalities.

It is clear that the wide domain, as hinted to above, extends very effectively towards more and more kinds of objects, such as, definitely, the autonomous vehicles (or even not necessarily so much autonomous, but supported by the modern technological telecommunication and computing capacities). A paper is, therefore, dealing with the multipath routing protocols for VANETs.

The two remaining papers are concerned, one, with the preliminary study to forecasting of electric energy consumption from the point of view of producers and distributors in the context of qualitative changes we are all going through, and the other one with the design concepts for the wings of very small flying objects, a theme very much to the point in recent years. These two papers, closing the issue, even though referring to slightly different subjects, differing from the rest, also pertain, definitely, to the questions of very intense current interest.

Altogether, the collection of keywords, relevant to this issue represents, certainly, a broad portion of what the contemporary research and engineering is actively considering and trying to provide effective solutions to.

We would like to express our thanks to Dr. Naresh Yadhav for His initiative and effort, put, with success, to the preparation of this Soecial Issue, and also our hope that it turns out to be of use for numerous Readers of our quarterly journal.

The Editors