

FOREWORD

Often the IJCIM publishes more generalist work that will be of interest to many members of the IT professions. This provides a strong method of achieving cross-fertilization through a variety of subfields. There is, however, also something to be said to allowing professionals and academics to peer over the shoulders of specialists in areas other than their own, giving them a picture of the detailed issues and methods in areas of research that may seem to be far from their own. Very often, however, seemingly very divergent fields have interesting, at times quite deep, commonalities that may not be apparent on the surface and that can lead to surprising insights that the researcher might not have predicted. The present issue of the Journal is dominated by such specialized articles and we hope very much that many insights will be sparked in our readers.

The first article by Chin-Tai Chen, Ming-Han Lin, Ching-Ping Wang and John Yuan studies the development of dynamic preventive maintenance policies for deteriorating production systems. This is an interesting example of the efficiency of the computer confronting and allowing us to accommodate the inevitable progressive inefficiency of the actual world, a theme that must be pervasive in many areas where computers must interact with a less than ideal material world and it thus may be of interest to those outside the manufacturing sector of the economy.

The second article by Fuqing Zhao, Dongmei Yu, and Yahong Yang deals with the development of material goods, but the imperfections it considers exist more in the computer realm itself than in the world. Data concerning products are often scattered over a number of CAD/CAM systems and integrating those data is an important step in the design and manufacturing process. The article considers how to accommodate the diversity of systems, an accommodation that is echoed in many areas of IT work.

The third article by Hani. K. Almohair, Abd Rahman Ramli, Elsadig A. M. and Shaiful J. Hashim investigates an interesting issue in the processing of computer images: the recognition of skin color in computerized images through luminescence. Again, this is a very specific article whose basic ideas may have more general application in an IT environment in which real-world distinctions must be made through digital mediation.

Timing is a critical element in all manufacturing schemes and the best way of engaging in timed activities is a critical question for industry. Yu-Hsin Lin, Chih-Hung Tsai, Ching-En Lee, and Sheng-Kaung Liu's article about wafer fabrication, examines such problems with reference to the optimal point of entry of a material into the process.

Iqbal H. Jebril, Rosli Salleh, and Al-Shawabkeh M. bring us into the fascinating world of cryptography, a world that is of increasing importance as communications security becomes so critical. Noting the several methods used in the modern world the authors consider Elliptic Curve cryptography, showing that its efficiency allows it to be used in small mobile devices. Even those without a professional interest in cryptography may enjoy this vital discussion.

Efficiency has been an important element of several of the articles discussed thus far and this critical issue, of interest to IT professionals generally, is an explicit theme in Akinyokun O.C. and Uzoka F.M.E's article about the use of academic staff in universities and its relationship to a university's investment portfolio. Using factor analysis, the authors engage in an analysis of the academic environment that will be of interest to both academics and to those who wish to examine organizational culture outside of the academic world.

Finally, Settapong Malisuwan and Jun Xu examine a case of implicit ambiguity: the problems that arise when internet domain names are similar enough to cause problems, including those involved with trademark. Again, we have an imperfect mapping of the computer world onto the real world, one that here has legal ramifications.

The theme of imperfection has also been an important element of the articles in this issue, one that cannot be avoided by anyone in the IT world, or indeed in any world. Again, this demonstrates how the same problem often crops up in quite different areas of work and we hope that these convergences are productive, perhaps in unexpected ways, for many of our readers.

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