Preface

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Biographical notes: P.S. Balamurugan have completed his Bachelor's degree in Engineering in 2003 at Ramakrishna Engineering College, Masters in Engineering in 2005 at Kumaraguru College of Technology and completed Doctorate in Engineering he has served the student community as a Professor enriching them in the science of Engineering and Technology. He has contributed his research in the area artificial intelligence, mobile computing, renewable energy, automation and much more.

R. Senthilkumar has completed his BE (CSE) in Adhiparasakthi Engineering College (Madras University) and MTech (IT) in Bharat Institute of Higher Education and Research and his PhD in VIT University in 2016. He has more than 19 years of teaching experience and currently working as Professor and Dean in Department of CSE at Galgotias University, UP. He published more than 13 research articles in the international journals and conferences. His research interest includes operating systems, software engineering, computer architecture and organisation, real time systems, system software, requirements engineering.

I am glad to introduce the special issue in *Future Trends on Software based Knowledge Management Process*. The journal provides the information, knowledge, techniques, guidelines for analysing the organisation protection, retention, design, development and business intelligent process to improve business process in upcoming organisational performance. The introduced special issue selects particular novel papers in different software based knowledge management process for improving the business process. There are seven papers being accepted. I am introducing them as follows:

Kumar and John Rajan introducing knowledge management based analytical hierarchy process for examining the supply information. In this method, exact suppliers, critical components and selection process is carried out by using gear box concept that successfully examines the knowledgeable supply chain information. In addition to

this, quality of supplied material, cost of material, stability, delivery process carried out for improving the supplier knowledge management process.

Vijay presented fuzzy use case point approach for examining the software effort estimation process. The introduced method utilises the fuzzy membership function along with use case models for examining the software distinguishing quality. Along with this, fuzzy inference rules are examines the software quality in terms of non-functional aspects that gradually enhance the software efforts and estimation process in successful manner.

Karthika Lekshmi and Vigilson Prem, designing successful trapezoid-based multi-keyword query ranking with weighted distributed approach for retrieving the knowledgeable information from cloud environment. During the information retrieval process, fuzzy rules are applied along with the weighted and threshold value for improving the knowledgeable cloud data sharing services. From the developed knowledgeable cloud data retrieval process successfully handling the complex user query with effective manner.

Jeni et al., introducing reliable army management process by using tacit knowledge process and xenogenetic deep neural network. In this method, various army based information is collected with the help of tacit knowledgeable process which is evaluated by splitting knowledgeable army information into different domains that has been examined in terms of competitiveness, human resource analysis and army organisation. During this process, developed knowledgeable information improves the overall army management process with effective manner.

Velammal developing knowledgeable sentiment analysis system using lexicon based approach. The method utilises the set of pre-defined polarity models with semantic scores for evaluating the sentiment or opinion about particular information. From the created polarity words, it has been processed by natural language processing and naïve bayes classifier to making decision about specific sentiments with effective manner.

Karthikumar and Chitra, analysing resource and VM management process in infrastructure cloud environment using co-operative bacterial foraging optimisation algorithm. The method utilises the various bacterial functions for allocating resources and resource allocation decision should be optimised using hybrid search space optimisation approach. After allocating the resources, it has been continuously tracked with help of cyber shake that examines the resource provisioning activities and trace the status of the particular task with effective manner.

Balamurugan and Abdul Zubar, enhancing and maximising the profit of firm, organisation effectiveness using lean concept in health sectors. The time study conducted for identifying the completion of service time for a patient, the systematically non value added activities identified. Furthermore, the 5S concepts implemented to enhance the performance of the hospital and eliminated wastes produced in hospital.

In summary, we can see that all these were giving the software based knowledge management process. We saw how software and knowledge based approach were pioneering towards assisting the business process and different research methodologies in firm to look forward a world with less problems for people and better profit to the organisation. I hope that this special issue will provide some valuable directions to industrialist, software developers to conduct more studies into similar directions.