In this MISR issue, we are delighted to present four research papers concerning the following topics: Facilities and Service Models for Electric Scooter Recharge Stations; Optimal Software Release Policy Approach using Test Point Analysis and Module Prioritization; A Simultaneous Business Design Method Utilizing G-RD and The Impact of Strategic IT Partnerships on IT Security. The summaries of the four papers are as follows.

Hsu-Che Wu and Pei-Wen Wang in their paper “Facilities and Service Models for Electric Scooter Recharge Stations” explore innovative service models of e-scooter recharge stations, and propose new prospects as well. An expert interview questionnaire was designed based on a literature review and interview analyses. Expert questionnaires are collected and analyzed, consisting of three dimensions: (a) facilities and service models, (b) establishment and promotion of e-scooter recharge stations, and (c) innovative e-scooter recharge stations e-service models. According to the professors’ and professional managers’ academic and practical opinions, they identify the model of establishing recharge stations at convenience stores and large supermarkets and department stores as the most feasible options. Moreover, most experts identified that cell-exchange stations also help in developing the e-scooter industry as well. Regarding innovative service models, the automatic model is the future trend.

Praveen Ranjan Srivastava, Subrahmanyan Sankaran and Pushkar Pandey in their paper “Optimal Software Release Policy Approach Using Test Point Analysis and Module Prioritization” present a Test Point Analysis based on Module Priority approach to determine the optimal time to stop testing and release the software. When to stop testing and release the developed software is one of the most important questions faced by the software industry today. Software testing is a crucial part of the Software Development Life Cycle. The number of faults found and fixed during the testing phase can considerably improve the quality of a software product, thereby increasing its probability of success in the market. Deciding the time of allocation for testing phase is an important activity of quality assurance. Extending or reducing this testing time, depending on the errors uncovered in the software components, can profoundly affect the overall project success. Since testing software incurs considerable project cost, over-testing the project can lead to higher expenditure, while inadequate testing can leave major bugs undetected, thereby risking the project quality. Hence prioritizing the components for testing is essential to achieving the optimal testing performance in the allotted test time.

Tetsu Saito, Kingo Udagawa and Koshichiro Mitsukuni in their paper “A
Simultaneous Business Design Method Utilizing G-RD” propose a new Simultaneous Design Method that is called Global Relations Diagram of function and demarcation (G-RD). When enterprises aim to perform BPR, not only the breakdown of business functions but also the design of the relations between businesses is required. Generally, BPR projects focus on the breakdown of business functions, but the relations between businesses are not fully designed by the conventional design method, Sequential Design Method, in many cases. In order to solve these problems, the modeling approach which details not only the business functions but also the relations simultaneously is required. This paper introduces some case studies which applies this Simultaneous Design Method to the BPR projects, and confirms the effectiveness of this Method utilizing G-RD.

Jason K. Deane, Terry R. Rakes, Loren Paul Rees and Wade H. Baker in their paper “The Impact of Strategic IT Partnerships on IT Security” examine forensic accounts of numerous past security incidents in an effort to learn more about the impact of partner relationships on security risk, and to suggest factors which may be indicators of increased risk. Because partnering is a common business practice which takes advantage of outside expertise and allows companies to focus efforts on their core competencies. A key component of partner coordination is information sharing. Whether a partner is a traditional partner such as a supply vendor, where the firms use information technology (IT) as a facilitator for information sharing, or an IT partner to which an organization outsources certain IT functions, IT allows partners to open information borders to each other. While beneficial in many ways, this sharing also creates security vulnerabilities which should not be ignored.

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