Souvenir

5th International Conference on
Applied Science, Engineering
Management
(ICAEM-2022)
January 21-22, 2022

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Publisher

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About Conference

5th International Conference on
Applied Science, Engineering and Management
(ICAEM-2022)

During the worldwide lockdown due to COVID 19 pandemic, a lot of important activities have come to a halt. However, when we look at the brighter side, all of us have more time for adding to our knowledge and insights.

With this aim, to keep contributing to learning and motivation International research and development Center for publication is going to organize a two-day International Conference with the title **"International Conference on Engineering and Technology (E & T- 2020)"** on Oct 26-27, 2020 through online mode.

We hope, this online mode of the conference in COVID-19 pandemic will be an appreciable step in promoting the research activities and new information between researchers, developers, students, academicians and practitioners working in and around the world by keeping the social distance in view to stop the spread of COVID-19 disease. This conference aims is to present the current researches being carried out in the field of social science and education development around the globe.

Prospective authors from academia as well as industry are invited to submit their abstracts that illustrate original/unpublished works and industrial applications describing advances and significant innovations in the field.

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<u>Message</u>

I am extremely pleased to share that International Research and Development Center for Publication (IRDCP) is organizing a two days **5th International Conference on Applied Science, Engineering and Management (ICAEM-2022)** on Jan 21-22, 2022.

I am sure the state of art lectures from the invited experts and the research findings of researchers, academicians, utility engineers will enrich the knowledge of all the participants. It will provide an excellent opportunity for students to learn new ideas.

I offer my best wishes to the whole team of the organizing committee, the participants, and volunteers for the grand success of the conference.

<div align="right">

Dr. Kiran
Convenor ICAEM-2022

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<u>Message</u>

I am happy to know that International Research and Development Center for Publication (IRDCP) is organizing a two days **5th International Conference on Applied Science, Engineering and Management (ICAEM-2022)** on Jan 21-22, 2022. I am sure that, this conference would provide an ideal platform for the academicians, scholars and experts to present and exchange their research findings and Ideas.

I wish the conference a great success.

<div align="right">Dr. Praveen Kumar Jain</div>

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Abstract of

ICAEM-2022

New Approximate Reasoning Method based on Least Common Multiple and Its Property Analysis

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Abstract— The fuzzy approximate reasoning is one of the important research branches in the uncertainty inference of Artificial Intelligence (AI) and Computational Intelligence (CI). This fuzzy approximate reasoning consists of two parts, i.e., fuzzy modus ponens (FMP) and fuzzy modus tollens(FMP). FMP and FMT have an important significance in modeling of the human thinking process, design and development of a lot of several intelligence systems and etc.

In this paper we proposed a novel original method of fuzzy approximate reasoning that can open a new direction of research in the uncertainty inference of AI and CI.

Firstly, our proposed method is based on distance measure, concretely, an extended distance measure by the least common multiple(LCM). The proposed fuzzy approximate reasoning method LCM based on a least common multiple is an inference one for the SISO fuzzy system with discrete fuzzy set vectors of equal or different dimensions between the antecedent and consequent of fuzzy rule. We call it LCM method. LCM method is consisted of two parts, i.e., FMP–LCM, and FMT–LCM. Secondly, in this paper we proposed and proved four theorems with respect to the information loss. In other words we pointed out that our proposed method LCM has not information loss, and then the previous methods, i.e., Compositional Rule of Inference(CRI), Triple Implication Principle(TIP), Quintuple Implication Principle(QIP) and Approximate Analogical Reasoning Scheme(AARS) have some information loss compared with our proposed method. Thirdly, we compared the reductive properties for the five fuzzy reasoning methods, i.e., CRI, TIP, QIP, AARS, and our proposed LCM with respect to FMP and FMT. The theoretical and experimental results highlight that the proposed fuzzy approximate reasoning method LCM is comparatively more clear and effective, and in accordance with human thinking than the previous fuzzy reasoning methods. Fourthly, in this paper we proposed and proved six theorems with respect to fuzzy controllability of the several fuzzy reasoning methods based on the fuzzy relation and our proposed method based on LCM. We pointed out our proposed method LCM has not only higher reductive property but also higher fuzzy controllability than the previous fuzzy reasoning methods.

Keywords— Approximate Reasoning, Fuzzy Modus Ponens, Fuzzy Modus Tollens, Least Common Multiple, Reductive Property

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Is Financial Literacy Crucial for Investment? - A Study on Mutual Fund Investors in Bangladesh

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Abstract— Peoples are always intending to invest their savings for several security purposes,but the crucial matter of concern is that where they are investing. Thinking of such investment options, capital market is a superior alternative all the time. Panic due to lack of financial knowledge about that market acts as crucial parameter in becoming the people's choice of investment. After went over a myriad of investment choices, mutual fund would be a secure platform to invest. The main purpose of this study is to get an overview about the financial literacy level of Bangladeshi investors who invest in mutual fund andtrying to assess the implication of financial literacy on investment intension.Data were collected with the help of online survey method from primary sources on the basis of a well-structured questionnaire where convenient sampling is applicable due to focus on mutual fund investors. Respondents' financial knowledge level is evaluated by asking eleven specific questions on varied financial concepts following the G20 survey of OECD and investment intention is measured by Ajzen's conceptual and methodological framework. Based on the descriptive statistics, Correlation is used to analyze the collected primary data. Some significant findings are uncovered like Bangladeshi investors belong to low literacy level. Study also indicates a negligible inverse relationship between financial literacy level and investment intention of investors which in turn stimulate existing investors to recommend others to invest in mutual fund due to low literacy level. So it is profound that low literate investors can be a vital key to promote mutual fund and enrich financial market of Bangladesh.

Keywords— Financial knowledge, Literacy, Mutual Fund, Investment intention, Bangladesh

Smart Attendance Monitoring System

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Abstract— One of the most important factors that determines a student's performance is attendance. It is critical to develop a smart system that reduces the workload associated with managing attendance, as this improves the performance of colleges, universities, and other educational institutions. Marking, consolidating, and maintaining student attendance are the most common actions in educational organisations. In this paper, the authors discuss how evolving technologies such as radio frequency identification (RFID) and wireless sensor networks (WSN) can be used to create a smart university. While considering the main cases concerned in a smart university, the prototype is developed using various WSN such as Passive Infrared (PIR), ZigBee, and Arduino based controller boards. The system includes smart student attendance, smart automation of taking attendance in an authenticated manner and storing it on the database server, as well as complete database and attendance authentication.

Keywords— Wireless Sensor networks, smart monitoring, RFID tags.

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Problems and Involvement of Human Resource Management Practices in Supply Chain Success in Small and Medium Enterprises

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Abstract— The Indian supply chain service market is anenergetic and highly competitive field. The industry, though, has been characterised as operationally ineffectiveto compare with those of the developed countries. Management practices are being conducted by most of firms which considerably switched to sophisticated way. This research paper aims to find out the relationship between human resource management (HRM) and supply chain management (SCM) in online retailers.

This paper also identifies whether, and how, different sets of HR practices offer to nurturing supply chain capabilities in the Indian online retail industry. This paper found that online retailers performed moderate level of HRM and SCM practices and there is a connectionamong HR practices that proactively contribute in supply chain success. Training contributed greater to SCM success as compared to other HRM factors. The company management must focus on boosting the SCM success by implementing sophisticated HRM practices. This integration will allow mapping unique strategies to gain an edge over competitors. Appropriate approaches must be considered at national level to enhance the national economy through online retailer sector.

Keywords— Human Resource Management, Supply Chain Management, online retail.

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Influence and Part of training and development in Supply chain management

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Abstract— To outshine in present scenario of competition, employees in supply chain are required to understandnot only their individualresponsibility, but also their responsibility in the continuous process. At every level, there are individuals that are open to new ideas and others that are more cautious to change. To growtha firm to better levels of supply chain maturity, everybodyshould be on the same page with cross-functional training and education.Employees and organizational capabilities sets require to be evaluatedso as to reveal gaps that might jeopardize supply chain renovation and success. Aninitialstage of knowledge assists ensure that workers have the appropriate background and knowledge so they are equipped to do their responsibilities effectively and make every day decisions that affect organizational performance.

The main aim of this research paper is to find out the association between training and supply chain management of employees working in selected e-commerce companies. Training and development activities are essential to strengthen employee commitment in supply chain of E-commerce companies.

Keywords— Employees, Training, Development, Supply chain management

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