

ABSTRACT PROCEEDING

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ERIA-JUNE-2019

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Date: June 25-26, 2019



**Association of
Engineering Technology
& Applied Sciences**

AETA International Conference on Future Trends in Engineering, Robotics and Drones, Information Technology & Applied Sciences (ERIA)

Conference organized by:



Association of Engineering Technology & Applied Sciences (AETA) aims to provide a forum for researchers, practitioners, and professionals from the industry, academia and government to discourse on research and development, professional practice in engineering technology and applied sciences..

Mission, Innovative Features & Ethics and Values

AETA is an organization aims to provide a platform to innovative academicians and researchers around the globe. The organization also encourages research activities by organizing research training workshops, conferences and publishing high quality research manuscripts in reputable international journals.

AETA is a dedicated platform to promote and encourage the latest advancements in Science, Engineering Technology & Applied Sciences for the betterment of human development.

We are passionate about discovering new ways to create value for our members and society. Driven by intellectual curiosity, we promote a culture of invention among all our delegates.

Membership, Conference, Publishing, and Research Information

Abstracts of the registered participants will be published in the conference abstract book with an ISBN.

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AETA International Conference on Future Trends in Engineering, Robotics and Drones, Information Technology & Applied Sciences (ERIA)

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Welcome Message

AETA International Conference on Future Trends in Engineering, Robotics and Drones, Information Technology & Applied Sciences (ERIA)

We are happy you decided to join your colleagues from around the world to explore innovative technologies, pioneering pedagogical strategies, and a sampling of international collaborations that are being used to engage and retain students, researchers and Scholars in the new millennium.

Scientific Committee

Prof. Kaninda Musumbu, LaBRI , Universite Bordeaux 1, France

Prof. Figueira, F. M. Monteiro, ULHT - Universidade Lusofona, Portugal

Dr. Ahmad Fairuz Bin Omar, School of Physics, University Science Malaysia, Malaysia

Dr. Le Hoang Son, Hanoi University of Science, Viet Nam National University, Vietnam

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Prof. Dong-Chul Park, Myong Ji University, Korea Prof. Mohamed Ben Haj Frej, POST University, USA

Abdulrhman.A.A.Emhemed, Assistant Professor, College of Technical Sciences-Bani walid, Libya

Acknowledgements

The organizing committee would like to thank all those people who were involved in making the conference a success. A great amount of planning and organizing is required to hold a successful conference, so we are indebted to those who volunteered their time and energy.

We want to thank all the members of the Association of Engineering Technology & Applied Sciences who volunteered their time to help organize the conference.

Engineering & Technology Studies

Acoustical engineering Agricultural engineering Aquacultural engineering Aquatic and environmental engineering Architectural engineering Army engineering maintenance Atomic engineering Aviation engineering B Biological interface engineering Biomechanical engineering Bioresource engineering Broadcast engineering Building services engineering C Ceramic engineering Chemical engineering Civil engineering Civionics Climate engineering Cloud engineering Collaborative engineering Computer engineering Computer-aided engineering Computer-aided production engineering Construction engineering Control engineering Cost engineering D Detailed engineering E Earthquake engineering Ecological engineering Electrical engineering Electronic engineering.

Accounting

Accounting Practices, Financial Modeling, Financial Analysis, Financial Statistics, Future Markets, Risk, New Trends for Accounting and Finance, Research for Accounting, Tax Theories and Practices, Tax Avoidance, Invasion and Extraction from Tax Invasion, Corporate Finance, Finance Theories, Money, Credit and Banking, Stock, Currency and Bonds, Commodity

Computational Engineering

Computational science and engineering (CSE) is a relatively new discipline that deals with the development and application of computational models and simulations, often coupled with high-performance computing, to solve complex physical problems arising in engineering analysis and design (computational engineering) as well as natural phenomena (computational science). CSE has been described as the "third mode of discovery" (next to theory and experimentation).[1] In many fields, computer simulation is integral and therefore essential to business and research. Computer simulation provides the capability to enter fields that are either inaccessible to traditional experimentation or where carrying out traditional empirical inquiries is prohibitively expensive. CSE should neither be confused with pure computer science, nor with computer engineering, although a wide domain in the former is used in CSE (e.g., certain algorithms, data structures, parallel programming, high performance computing) and some problems in the latter can be modeled and solved with CSE methods (as an application area).A Agent-based computational economics Algorithmic art Artificial intelligence Astrominformatics Author profiling B Biodiversity informatics Biological computation C Cellular automaton Chaos theory Cheminformatics Code stylometry Community informatics Computable topology Computational aeroacoustics Computational archaeology Computational astrophysics Computational auditory scene analysis Computational biology Computational chemistry Computational cognition Computational complexity theory Computational creativity Computational criminology Computational economics Computational electromagnetics Computational epigenetics Computational epistemology

Interdisciplinary

Children and Youth, Communications and Media, Complex Systems, Conflict resolution, Creativity, Culture, Disaster Management, Discourse, Film studies, Gender studies, Globalization, HIV/AIDS, Human Rights, Identity, LGBT Studies, Leadership, Memory, Multidisciplinary Studies, Poverty, Public Policy, Security, Sexuality and eroticism, Spirituality, Sport science, Sustainable development, Urban studies, Violence Women's studies

General Economics, Economic Development, Technological Change and Growth

Microeconomics, Household Behavior and Family Economics, Economic Development, Sustainable Development, Eco-Development, Production and Organizations, Welfare Economics, Macroeconomics and Monetary Economics, International Economics, Public Economics, Analyses of Economic Development, Agriculture; Natural Resources; Energy; Environment; Other Primary Products, Human Resources; Human Development; Income Distribution; Migration, Economic Development: Financial Markets; Savings and Capital Investment; Corporate Finance and Governance, Regional, Urban, and Rural Analyses, International Linkages to Development; Role of International Organizations, Fiscal and Monetary Policy in Development, Trade Policy; Factor Movement Policy; Foreign Exchange, Innovation and Invention: Processes and Incentives, Management of Technological Innovation and Research and Development

IT Business

Business for AI and Deep Learning, Technological Forecasting and Social Change, Business for Big Data, Internet of Things and Cloud Computing, Business for IT-driven Services, Information Systems and Informatics, ICT for Business, ICT for Education, Healthcare, Finance and Other Sectors, Large Scale Surveys and Analysis, HCI and Computers Human Behavior, Computers In Industry

Conference Schedule

AETA International Conference on Future Trends in Engineering, Robotics and Drones, Information Technology & Applied Sciences (ERIA)

Rome, Italy

June 25-26, 2019

09: 00 am - 09: 30 am	Registration and Reception
09: 30 am - 09:40 am	Introduction of Participants
09: 40 am - 09:50 am	Inauguration and Opening address
10: 50 am - 10:00 am	Grand Networking Session
10: 00 am - 10:30 am	Tea Break

ISER International Conference on Multidisciplinary Approaches in Business Economics, Social Sciences, Accounting & Banking Research (MASAB)

**Day 01: Tuesday
June 25, 2019**

Session 01: 10:30 am 11:10 am

Track A: Engineering, Technology & Applied Sciences

Presenter Name: Seval Uyank

Reference ID: ERIA-06-P3

Paper Title: The Bursting Strength Properties of Knitted Fabrics Containing Recycle Polyester Fiber

Presenter Name: Elsy Y. Flores

Reference ID: ERIA-06-P7

Paper Title: Ultra-High Performance Concrete Shear Keys in Concrete Bridge Superstructure

Session 02: 11:10 am 01:00 pm

Track B: Business, Economics, Social Sciences & Humanities

Presenter Name: Naima Atiq

Reference ID: MASAB-JUNE-02

Paper Title: An Empirical Study of Factors Effecting Entrepreneurial Intention among Youth Fiber

Presenter Name: Kaarina Maatta

Reference ID: MASAB-JUNE-03

Paper Title: The Elements of Successful Completing the Masters Degree

Presenter Name: Jose L. Gallizo & Jordi Moreno

Reference ID: MASAB-JUNE-05 & 05C

Paper Title: Is the Vertical Integration Profitable in Family Firms? Evidence from the Spanish Agri-Food Industry

Presenter Name: Karel Slintak

Reference ID: MASAB-JUNE-08

Paper Title: The Concept of Management and its Impact on Selected Factors

Presenter Name: Petr Bris

Reference ID: MASAB-JUNE-09

Paper Title: The Importance of Ergonomics as an Integral Part of Hospital Quality Management

Presenter Name: Vranda Jain & Dr. Prashant Gupta

Reference ID: MASAB-JUNE-13 & 13C

Paper Title: The Forthcoming Artificial Intelligence Revolution: Its Impact on Indian Society

Presenter Name: Assoc.Prof.Dr.Tugba Selanik-Ay

Reference ID: MASAB-JUNE-10

Paper Title: An Innovative Way in the Outdoor Social Studies Education: Learning Passport

Closing Ceremony & Lunch (01:00 pm 02:00 pm)

AETA International Conference on Future Trends in Engineering, Robotics and Drones, Information Technology & Applied Sciences (ERIA)

**Day 02: Wednesday
June 26, 2019**

Conference second day is reserved for participants own tourism activities.

Conference Abstracts

Track A: Engineering, Technology & Applied Sciences

The Bursting Strength Properties of Knitted Fabrics Containing Recycle Polyester Fiber

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The use of recycled materials has become increasingly important in the textile and apparel industry. Recycling means the breakdown of raw materials from existing products and re-use of this raw material in a new product. Many fibers including cotton, wool, nylon, and even aramids are recycled and re-used in the yarn manufacturing, but polyester are especially the most common fiber for recycling. This study aims that determining the bursting strength in the circular knitted fabrics with blend yarns containing recycle polyester fiber at different yarn number. For this purpose, blend yarns containing viscose fiber and recycle polyester fiber at different blend ratios, and pure yarns with virgin polyester fiber were produced in the first stage. The obtained yarns were tested to determine of their physical and mechanical properties considering relevant standards. After, these yarns were knitted in the circular knitting machine in the second stage. The physical properties including tightness, mass and thickness of the knitted fabrics were determined according to relevant standards. Lastly, the bursting strength tests were applied to the knitted fabrics in the relevance with TS EN ISO 13938-2 standard. At the last of the study, it is determined that recycle polyester fiber has negative effect for yarn quality. Furthermore, this negativity is more observed in physical properties which are unevenness, imperfection and hairiness than mechanical properties which are tenacity and elongation. On the other hand, the negative effects are less for coarse yarns than fine yarns. As for the knitted fabrics containing coarse yarns, the difference between the fabrics with recycle polyester fiber and the fabrics with virgin polyester fiber is less in terms of bursting strength, whereas this difference is much more for the knitted fabrics containing fine yarns.

Index Terms: Recycle Polyester Fiber, Knitted Fabric, Bursting Strength, Virgin Polyester Fiber, Viscose Fiber Yarn Properties, Fabric properties.

Ultra-High Performance Concrete Shear Keys in Concrete Bridge Superstructure

Elsy Y. Flores ^{1*}, Jordan Varbel ², William K. Toledo ³, Craig M. Newton ⁴, Brad D. Weldon ⁵

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An emerging trend in structural engineering is the increased use of ultra-high-performance concrete (UHPC). As UHPC use becomes more established, the next trend will likely be increased use of nonproprietary UHPC mixtures. This research investigated the use of locally produced UHPC as a grouting material to repair deteriorated shear keys. Shear keys are used in adjacent girder superstructures to produce monolithic behavior and load transfer across the structure. Shear key degradation can jeopardize the integrity of the structure. Transportation agencies have reported that 75% of distress in adjacent girder bridges is due to cracking and de-bonding along shear keys. Previous research has shown that locally produced UHPC has excellent mechanical and durability properties. UHPC has been shown to have good bonding characteristics that are desirable in a potential grouting material. Several tests were conducted to evaluate UHPC as a shear key grout material. Bond strength between UHPC grout and substrate concrete was evaluated using slant-shear and direct tension tests. Results showed that adequate bond was achieved at seven days. Low strengths at 28 days were observed due to low strength of the substrate concrete. Shrinkage of UHPC grout was also investigated. Shrinkage at 28 days was less than 600 μ strain which is acceptable for repair practices. Full-scale testing was used to evaluate load-deflection behavior of channel girder assemblages with grouted shear keys. Results showed that UHPC grout and non-shrink grout had similar mechanical performance. Excellent bond was achieved with all grouts, even with minimal surface preparation. In fact, the shear keys remained bonded to the girders even when service load deflections were exceeded and no lateral restraint, such as post-tensioning, was provided. The similar performances of the non-shrink grout and the UHPC grout indicates that UHPC grout does not provide a mechanical benefit over the non-shrink grout.

Index Terms: Structural Engineering, Ultra-High-performance, Bridge Superstructure

Conference Abstracts

Track B: Business, Economics, Social Sciences & Humanities

An Innovative Way in the Outdoor Social Studies Education: Learning Passport

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In terms of gains, values, skills and components of the social studies course which is included in the primary school education programs it cannot be internalized without relying on the social participation skills. Because this course includes the daily life activities and topics. The social studies lessons are based on the application of what is learned at schools to society. On the other hand, the learning passport, which can be defined as a new way in out-of-school learning, is created to provide self-control of learning achievements of different types and levels, as well as to serve as target-setting, guidance and motivation providers for learning. The participants of the study were attending the third grade of a state university, they were taking the course of social studies teaching during the fall semester of the academic year of 2018-2019. The number of the participants was 103 and 68 of them were female whereas 35 of them were male. The study was carried out for eight weeks. At the end of the study the views of the participants concerning the use of the learning passports in the course were evaluated. The data of the study were collected using a survey questionnaire containing five open-ended items. It was developed by the authors. It dealt with the views of the participants about the definition, contributions, benefits, use in other courses and required measurement and evaluation process related to the learning passports. Their views about the definition of the learning passports were categorized under the following themes: social studies, measurement-evaluation and discovery; affective contributions; personal evolution; teacher training; skill and value acquisition; out-of-school learning; constructivism. They reported that the learning passports have contributions in the fields of affective domain, professional domain and teaching of primary students. They also reported the reasons for using or not using the learning passports in their future Professional life. In addition, the participants expressed their views on the adopting of the learning passports to other courses and on the evaluation of the learning passports.

Index Terms: Out-of-School Learning, Social Studies Teaching, Learning Passport, Pre-Service Classroom Teachers

An Empirical Study of Factors Effecting Entrepreneurial Intention Among Youth

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Entrepreneurship is considered as an important factor contributing positively to the economy of a country. Entrepreneurs not only expedite economic activity by innovations but also play a vital role in job creation and development. The decision to become an entrepreneur by an individual is always backed by the intention to perform such behavioral activity. The entrepreneurial intention is the key determinant of the entrepreneurship activity. The focus of the proposed study is to study the factors influencing the entrepreneurial intention of academic graduates. The aim of the study is to understand the relationship between personality and social factors on entrepreneurial intention. The study is further focused on the university students.

It has been observed that there is a positive relationship between independent variables like individuals' personal characteristics, Perception about own abilities to become an entrepreneur, Influence of family and friends and dependent variable i.e. entrepreneurial intention, however, the different aspects of study components showed varying levels of significance. The independent variables' perception about qualities of an entrepreneur and career choice had an overall insignificant relationship with the intention for entrepreneurship in the present study. The study shows that there is a significant relationship between the personality factors as well as the social factors on the entrepreneurial intention among university students and an entrepreneur's decision is influenced by different elements that associate varyingly to influence entrepreneurial intention.

Index Terms: Entrepreneurship, Entrepreneurial Skills, Entrepreneurial Intention

The Elements of Successful Completing the Masters Degree

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Today, efficiency requirements and productivity expectations have a great influence on studies in colleges and universities. How to enhance the smoothness of university studies from the students point of view? This study introduces the resources and study approaches that are needed in students when aiming at completing the Masters degree as described by Master students and alumni, who are people having graduated as Masters earlier. The data were collected at the University of Lapland in Finland. The data collection took place during a so-called Masters workshop where 110 students from different colleges at the university performing Masters studies participated. Alumni presented their viewpoints and experiences of the knots of studies and about the different phases of studies and their coping strategies. What do Masters studies require? And what are successful Master graduates made of? The participants viewpoints were analyzed through qualitative content analysis. The findings were divided into 12 themes. The findings illustrate the various dimensions of study processes at universities and form a useful presentation of the factors that should be considered when aiming at supporting students smooth study processes.

Index Terms: Productivity, Efficiency, Qualitative Content Analysis

Is the Vertical Integration Profitable in Family Firms? Evidence from the Spanish Agri-Food Industry

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The aim of this paper is to analyse whether the family control exerts a significant influence on profitability in agri-food companies that have been vertically integrated. This assumption is based on the idea that family-owned firms better overcome the internal conflict that arises in a company by reducing transaction costs. We have analysed the determinants of the profitability and its annual increase, considering the kind of company and its sector. Results show that family firms tend to perform better, both from an economic and a financial perspective, than their counterparts, obtaining higher levels of efficiency with lower levels of debt. These factors, which affect the production efficiency, lead to a higher profitability of family firms mainly attributable to the reductions of costs and financial expenses. Efficiency and size grow if the family business is also vertically integrated, although its levels of financial risk and commercial credit also increase and its sales margin decreases, which causes a decrease in its profitability. In general, these results are robust if the analysis is repeated by type of company, sector and year.

Index Terms: Counterparts, Profitability, Commercial

The Concept of Management and its Impact on Selected Factors

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The aim of this article is to explore the relationship between the concept of management and these factors: firms size, articulating a vision, firms performance in form of revenues, employee engagement. On the basis of literature review, we define the concept of management in terms of two basic approaches, which are planning and organizing (aimed at expected opportunities), and the process of iteration and experimentation (aimed at unexpected opportunities). The first approach is typical of traditional management. This management style is based on model of command and control. The second approach is part of leadership theory and emphasizes the soft aspects of management and higher human aspiration. In this case, this managerial approach is driven by trust. The basis of this article was quantitative research in form of questionnaires distributed among 200 companies in the Czech Republic. To determine whether there is a relationship between management style and the selected factors, we formulated five statistical hypotheses. They were verified with the Test of good accordance and the T-test. We found out that the most important factor is firms size. There is a statistically significant differences. Other factors were not statistically significant.

Index Terms: Management Style, Model of Comand and Control, Leadership, Planning, Organizing, Trust

The Importance of Ergonomics as an Integral Part of Hospital Quality Management

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The research shows that the number of missed days of workers has a growing trend due to the health problem. These missed days are mainly registered in the health care sector rather than the industrial sector. Unsuitable ergonomic conditions can be the cause of these trends. The research of 98 hospitals in Czech Republic and Slovakia shows the severity of the ergonomics issues and how the workers themselves perceive the issue of ergonomics. The results of the research confirm high demands of health care workers on their psyche, there were signs of congestion in a large part of the interviewees, and also a great deal of difficulty was recorded in the area of manipulation. The management has very little interest in the issue of ergonomics, though they are motivated to work and solve the problem together.

Index Terms: Workers, Manipulation, Ergonomics

The Forthcoming Artificial Intelligence Revolution: Its Impact on Indian Society

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Artificial Intelligence (AI) is set to disrupt and transform the world. As machines perform various cognitive tasks, AI supplements and complements human intelligence and enhances human capabilities. Global estimates present potential economic and social benefits arising from AI applications. A recent Accenture report (2017) estimates an increase in annual output growth by 1.3 per cent in Indian economy by 2035, attributable to AI implementation. Recognizing this potential of AI, coupled with distinct characteristics of Indian economy, Indian government embarked its journey towards the formulation of a national program on AI to boost socio-economic development and inclusive growth. This is in sync with India in 21st century envisioned by prime minister urging various stakeholders to build AI solutions that lead to fundamental motto of Sabka Saath, Sabka Vikaas (i.e. AI for all). This study is aimed towards understanding the effect of AI on healthcare as this sector is capable of generating high societal benefits through the multiplier effect. AI solutions can overcome challenges associated with availability of qualified healthcare professionals, accessibility and affordability and aid in early detection of diseases (like Cancer and diabetes) arising out of aging population and unhealthy life style. The study defines the varied roles of government as facilitator, promoter and owner. The study being exploratory in nature has used qualitative method to propose a market mechanism for easy adoption of AI solutions. Results suggest that promoting AI research and reskilling of existing workforce is crucial. Increased AI adoption through a collaborative approach involving all stakeholders, providing a level playing field and adequate support to AI startups, enhancing AI visibility and awareness can contribute in addressing existing healthcare challenges and will drive towards a better society.

Index Terms: Artificial Intelligence, Reskilling, Qualitative Method

Upcoming Events

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