

7th International Conference on Business Research

ICBR 2024

December 04, 2024

Organized by

Business Research Unit
Faculty of Business
University of Moratuwa
Sri Lanka

Conference Proceedings



International Conference on Business Research (ICBR)

<https://icbr.uom.lk/>

ICBR 2024, December 04, 2024

Conference venue: University of Moratuwa, Sri Lanka

Conference organized by: Business Research Unit (BRU), Faculty of Business, University of Moratuwa, Sri Lanka

Copyright and reprint permissions:

Copyright © 2024 Business Research Unit, Faculty of Business, University of Moratuwa, Sri Lanka. All rights reserved according to the Code of Intellectual Property Act of Sri Lanka, 2003. No part of this publication may be reproduced, stored, transmitted, or disseminated, in any form, or by any means without prior written permission from the Business Research Unit.

The Business Research Unit grants authorization for individuals to photocopy material for private research use. This authorization does not extend to any other kind of copying, by any means, in any form, for any purpose other than private research use.

Disclaimer:

The Business Research Unit makes every effort to ensure the accuracy of the content in the publication. No responsibility is accepted for the accuracy of information contained in the text and illustrations. The accuracy of the information should be independently verified with primary sources of information. Any opinions and views expressed in this publication are the opinions and views of the authors, and not necessarily those of the Business Research Unit.

The Business Research Unit is the research dissemination arm of the Faculty of Business, University of Moratuwa, Sri Lanka.

ISSN 2630-7561

7th International Conference on Business Research | ICBR 2024

“Rising Like a Phoenix: Emerging from Crisis and Reshaping Society with Digital Innovation”

Global business is in a state of constant change, marked by challenges that test the resilience of organizations, industries, and societies. The past few years have been particularly turbulent, marked by unprecedented crises such as the COVID-19 pandemic, geopolitical tensions, and economic uncertainties. While these crises have left lasting impacts, they have also driven significant transformations. The theme of this year’s conference, *“Rising like a Phoenix: Emerging from Crisis and Reshaping Society with Digital Innovation,”* reflects this journey of rebuilding and thriving through the strategic use of digital innovation.

The phoenix, a mythical bird that rises renewed from its ashes, symbolizes resilience and renewal. This powerful metaphor captures the journey of organizations and communities that have turned adversity into an opportunity for reinvention. In these challenging times, digital innovation has been the key to this transformation. Technologies like Artificial Intelligence (AI), Blockchain, the Internet of Things (IoT), and Big Data Analytics are no longer just tools—they are fundamental drivers of new approaches to business operations, customer engagement, and societal well-being.

Digital innovation does more than help businesses survive; it enables them to rethink traditional models and explore new opportunities for growth. Beyond its economic benefits, it has the potential to reshape society in meaningful ways. Technology is addressing critical challenges, from improving access to healthcare to promoting environmental sustainability. Smart cities, powered by IoT and AI, are emerging as models of urban efficiency, connectivity, and quality of life.

This conference provides a platform for scholars, practitioners, and policymakers to explore how digital innovation can help overcome crises and reshape society. By sharing research, insights, and experiences, we aim to chart a path toward a future where businesses and communities recover stronger, fairer, and more sustainable. Together, we can embrace the spirit of the phoenix—rising from adversity and using digital innovation as a powerful force for good.

Message from the Vice Chancellor

Senior Prof. N.D. Gunawardena
Vice Chancellor
University of Moratuwa



It is with great pleasure that I extend my warmest greetings to all participants of the 7th International Conference on Business Research (ICBR 2024), organized by the Business Research Unit of the Faculty of Business, University of Moratuwa. This year's theme, "*Rising like a Phoenix: Emerging from Crisis and Reshaping Society with Digital Innovation*," resonates deeply with the global imperative to rebuild stronger, smarter, and more resilient societies in the aftermath of unprecedented challenges.

As a premier platform for researchers, academics, and industry practitioners, ICBR 2024 facilitates the exchange of innovative ideas, ground-breaking research, and transformative practices that align with the dynamic digital era. The focus on leveraging digital technologies to overcome crises and drive national progress underscores the conference's commitment to fostering sustainable development and economic recovery.

The University of Moratuwa is proud to host this remarkable gathering of thought leaders, whose collective insights and expertise will undoubtedly inspire actionable solutions to real-world problems. I am confident that the discussions and collaborations initiated here will leave a lasting impact on the academic and professional communities and, more importantly, contribute to the betterment of society.

I take this opportunity to extend my profound thanks to the organizers, contributors, and participants for their dedication and passion in advancing the frontiers of knowledge.

I wish the conference a resounding success, illuminating the path toward a brighter future.

Message from the Dean

Prof. G.D. Samarasinghe
Dean, Faculty of Business
University of Moratuwa



It is with immense pleasure that I cordially welcome you all to the 7th International Conference on Business Research (ICBR 2024) organized by the Faculty of Business (FOB), University of Moratuwa (UOM), Sri Lanka. As a significant academic responsibility, FOB firmly believes that it is a timely obligation to promote, disseminate, and share the knowledge on contemporary business knowledge and wisdom pertaining to Business Science, Management, Entrepreneurship, and the other allied disciplines in Management with various stakeholders in the contemporary global village. To accomplish this endeavor, the theme of the conference is titled “*Rising like a Phoenix: Emerging from Crisis and Reshaping Society with Digital Innovation.*” This would be enormously important to advance our vistas of sustainable competitive edge aspired by both local and global business communities in the face of turbulent times. To address this necessity, the FOB has taken the initiative to position its ICBR 2024, as an intellectual platform where industry, academia, and practitioners would meet together, interact, and share their views and solutions related to the issues and challenges in the Industry 5.0 based business community.

This event is an important international event in the FOB for attracting research students, scholars, faculty members, and professionals from different parts of the world. The research tracks covered in the conference have been scheduled given our broad-based interest in Business Science as well as general Business Management.

Mostly, I would like to offer my immense gratitude to the Vice-Chancellor, Deputy Vice-Chancellor, and the Senate Research Committee of the UOM, for their inspirational leadership and insightful guidance in organizing the conference successfully during this challenging time. I also deeply appreciate all those who contributed to making this endeavor a grand success. My sincere appreciation goes to Dr. I.M.P.K. Illankoon, Director-BRU, and Conference Chair; Prof. G.D. Gunawardane, Conference Co-Chair; Dr. (Ms.) K.D.A.M. Gunawardana, Secretary-BRU, and Editor-in-Chief of the conference proceedings; Ms. M.A.S. Fathima, Secretary-ICBR 2024; and all the other committee members for their precious contributions.

Further, I am mostly grateful to the Registrar and the Bursar for extending their unconditional support to make this important event a reality in the annual calendar of the FOB. All Heads of the Departments, the Directors of the Faculty, and all other academic and non-academic staff members as well as well-wishers are also greatly appreciated for extending their supportive hands for this event.

Furthermore, my deep appreciation should go to the Eminent Guest of Honor, Prof. U. Kumar, Chair Professor of Operation & Maintenance Engineering and Director of Luleå Railway Research Center at Luleå University of Technology, Sweden for gracing the event. Moreover, I would extend my earnest gratitude to the distinguished Keynote Speakers; Prof. J. Kaluarachchi, Dean of the College of Engineering at Utah State University, USA, and Mr. J. Peiris, Chief Information Officer, MAS Holdings, Sri Lanka for accepting the invitation to enlighten the participants at ICBR 2024.

Last but not least, I should deeply acknowledge the Editorial Board, the Expert Panel of Research Paper Reviewers, and the Chairs of the Technical Sessions for their domain expertise shared with the authors of the papers submitted for ICBR 2024 as well as all the authors and presenters of the papers today.

I wish all of you a wonderful experience and networking session at the ICBR 2024. Thank you!

Message from the Conference Chair

Dr. I.M.P.K. Illankoon
Director, Business Research Unit
University of Moratuwa



It is my great pleasure to welcome you to the 7th International Conference on Business Research, University of Moratuwa, Sri Lanka. This year, we are delighted to host the highest number of participants ever, a testament to the conference's growing success in knowledge exchange. The theme for this year's conference, "*Rising like a Phoenix: Emerging from Crisis and Reshaping Society with Digital Innovation*," reflects the critical role of technology in navigating challenges and driving transformative growth. As nations and businesses recover from global crises, digital innovation serves as a catalyst for redefining societal and economic landscapes. This theme resonates deeply with Sri Lanka's aspirations, as local enterprises strive to leverage digital solutions for sustained competitiveness in the global arena.

The schedule of the ICBR 2024 is rich with intellectual opportunities. We are honored to present three major speeches, offering valuable insights into emerging trends in digital innovation across service and manufacturing sectors. The panel discussion in the morning is poised to deepen our understanding of how digital technologies can tackle real-world challenges, paving the way for resilience and growth. Meanwhile, the afternoon's "Meet the Editor" session will serve as a springboard for young researchers, inspiring them to excel in producing globally impactful research in the future. The presentations are organized across four tracks: in the morning—Finance Management & Organizational Behavior and Business Process Management, and in the afternoon—Sales, Marketing, & Operations Management and Business Analytics & Decision-Making.

As we look to the future, it is evident that the true value of research lies in its ability to drive practical solutions. I commend the growing emphasis on applied research and encourage all participants to continue pursuing methodologies that bridge the gap between theory and practice, ensuring your work delivers a meaningful impact on industries, economies, and communities. I am also grateful for the increasing international collaborations that have enriched this conference. The partnerships across nations and disciplines empower us to push the boundaries of innovation. I urge all of you to continue to actively seek such opportunities, fostering a truly global exchange of ideas.

We had an extended team comprising local and international members who worked tirelessly to ensure a seamless experience for all. The editorial and advising teams contributed their expertise to uphold the highest standards of quality, while the review teams played a crucial role in evaluating and refining submissions. Their collective efforts have been instrumental in the success of this conference, and I deeply appreciate the commitment and hard work of the local and international teams.

Let us seize this moment to reflect on the broader impact of our collective efforts. Together, we can create research that not only advances academic knowledge but also serves as a force for societal transformation and prosperity.

I wish you all a productive and inspiring conference. Thank you!

Message from the Chief Guest

Prof. U. Kumar

Chair Professor of Operation & Maintenance Engineering

Director of Luleå Railway Research Center at Luleå University of Technology, Sweden



It gives me immense pleasure to note that the University of Moratuwa is organizing the 7th International Conference on Business Research (ICBR 2024), with the theme “*Rising like a Phoenix: Emerging from Crisis and Reshaping Society with Digital Innovation.*” I am pleased to say that this conference will address a theme that is not only timely but essential in today’s rapidly evolving world.

With digital innovation, we are positioned not only to emerge from crises but to build a resilient, progressive, and equitable future for all. The potential of digital transformation is indeed boundless, as it has already demonstrated profound impacts across various regions. The success of digital transformation in South Asia has, in part, been driven by an openness to learn from other global regions, further underscoring the benefits of knowledge sharing.

Over the past decade, we have witnessed an extraordinary digital shift in many countries all around the world. Across the region, digital innovation has proven transformative, enhancing economic landscapes and expanding access to essential services at affordable cost. Digital transformation of services and organizations has streamlined government functions, empowered individuals leading to improved financial status, and bridging divides between rural and urban communities. In Sri Lanka, in particular, digitalization has been a powerful driver of growth and connectivity, with ongoing efforts to strengthen infrastructure and expand digital access.

Through a collaborative and forward-looking approach, we can create solutions that bridge divides, unlock opportunities, and empower every member of society.

Collaborations and exchanges around cybersecurity, digital literacy, and data privacy have helped provide frameworks for building safe and reliable digital ecosystems. Furthermore, partnerships with global technology firms and international development bodies have accelerated the region’s progress towards a digitally inclusive society.

However, the journey has not been without its unique challenges. Infrastructure gaps, inconsistent internet connectivity, and limited access to digital devices remain significant barriers. Additionally, cultural and linguistic diversity within countries often necessitates local adaptations, making scalability complex and costly. Digital literacy also remains a key area to address, with many individuals still needing support to effectively utilize digital services. For the common man and industries, cybersecurity issues are overshadowing the benefits of digitalization and digital transformation efforts.

Despite these hurdles, the commitment to digitalization in most of the countries in South Asia is unwavering. Today, we stand at a pivotal moment, where combined efforts from government, industry, and academia are paving the way toward a future. I am confident that our discussions on digital innovation at this conference will spark solutions that not only transform economies but also improve lives across every part of society. I encourage all participants to engage fully in the sessions, share their expertise, and take advantage of the invaluable networking opportunities this conference offers immense potential.

Thank you for the opportunity to share this vision, and I wish everyone a successful and inspiring conference. I look forward to the insights that will emerge from this gathering. My best wishes for a successful and impactful event!

Content

ICBR 2024 Advisory Committee	1
ICBR 2024 Editorial Committee	2
ICBR 2024 Organizing Committee	3
ICBR 2024 Reviewer Panel	4
Conference Programme	7
Address by Conference Co-Chair	8
Keynote Addresses	10
Keynote Address 1	10
Keynote Address 2	11
ICBR 2024 Full Papers and Extended Abstracts	
Technical Session 1: Finance Management & Organizational Behavior	
Paper ID: 2	
EFFECT OF ENTREPRENEURIAL LEADERSHIP ON EXPLORATORY INNOVATION – THE ROLE OF INTRINSIC MOTIVATION AND ENVIRONMENT DYNAMISM AS MODERATORS IN THE IT SECTOR OF SRI LANKA	14
Paper ID: 7	
IMPACT OF SAFETY MEASURES ON OCCUPATIONAL ACCIDENTS AMONG CAST IRON FOUNDRY WORKERS	62
Paper ID: 10	
IN SEARCH OF GREEN-BASED SUSTAINABLE COMPETITIVENESS AND GREEN TRANSFORMATIONAL LEADERSHIP IN SMALL AND MEDIUM-SIZED HOTEL FIRMS: A CASE IN SOUTH ASIAN CONTEXT	101
Paper ID: 16	
THE IMPACT OF MONETARY POLICY ON INFLATION AND PRODUCTION: A COMPARATIVE STUDY ON SRI LANKA, INDIA, AND THE USA	177
Paper ID: 18	
OPTIMISING FINANCIAL FORECASTING: IMPLEMENTING A PREDICTIVE CASH	

FLOW PLATFORM FOR BANK BRANCHES 200

Paper ID: 21

ADVERSE IMPACT OF INTERNET SHUTDOWN ON E-COMMERCE AND SOCIAL MEDIA MARKETING IN BANGLADESH 212

Paper ID: 28

ORGANIZATIONAL CULTURAL DYNAMICS FOR ORGANIZATIONAL ENTERPRISE RESOURCE PLANNING IMPLEMENTATION: A CASE STUDY ... 278

Technical Session 2: Business Process Management

Paper ID: 13

AN INTEGRATED APPROACH TO ENHANCING THE HIRING PROCESS FOR COOLIE LABOURERS 136

Paper ID: 15

AN INITIAL LEAN WASTE ASSESSMENT AT A MANUFACTURING PLANT: AN ATTEMPT TO PRIORITISE WASTE ELIMINATION 163

Paper ID: 27

ADOPTION OF VERTICAL INTEGRATION TOWARDS BUSINESS PERFORMANCE EXCELLENCE: A CASE STUDY 263

Paper ID: 29

IMPROVING THE USABILITY OF HOTEL APPLIANCES WITH MINIMUM ENGINEERING ASSISTANCE..... 292

Paper ID: 31

REDUCING CHANGEOVER TIME IN THE PRINTING PROCESS 304

Paper ID: 35

STREAMLINING DOCUMENTATION AND TRACEABILITY: A STUDY AT SHOP FLOOR LEVEL 346

Paper ID: 37

ERP IMPLEMENTATION – OVERCOMING ISSUES LINKED WITH THE PROCUREMENT PROCESS 360

Paper ID: 39

REDUCING CHANGEOVER TIME IN INJECTION MOLDING: A LEAN APPROACH 372

Technical Session 3: Sales, Marketing, & Operations Management

Paper ID: 3

IMPACT OF PROJECT ENVIRONMENTAL FACTORS ON NON-FINANCIAL PERFORMANCE OF SOFTWARE PROJECTS IN SRI LANKA 24

Paper ID: 5

INFLUENCE OF WEB-BASED HEDONIC STIMULI TO EMERGE IMPULSE PURCHASING DECISIONS IN FASHION RETAIL SECTOR – AN S-O-R MODEL-BASED CUSTOMER BIOMETRIC ANALYSIS 40

Paper ID: 6

HOW DOES PERSONALIZATION OF THE PRODUCTS AFFECT CONSUMERS' ATTITUDES TOWARD THE PRODUCT 51

Paper ID: 8

IMPACT OF GAMIFICATION ON CUSTOMER EXPERIENCE AND PERCEIVED VALUE IN THE SRI LANKAN TELECOMMUNICATION MARKET 74

Paper ID: 9

FACTORS DRIVING THE SYSTEMATIC GROWTH OF ORNAMENTAL FISH EXPORTS: WITH SPECIAL REFERENCE TO NORTH-WESTERN PROVINCE, SRI LANKA..... 87

Paper ID: 14

EDUCATION IS A FEMININE BRAND PERSONALITY: A CASE STUDY ON FACEBOOK ADVERTISING BY NON-STATE HIGHER EDUCATION INSTITUTIONS 149

Paper ID: 17

WHAT IS THE EFFECT OF SUPERMARKET MANAGERS' BEHAVIOR ON FOOD WASTE? 189

Paper ID: 22

COMMERCIALIZATION OF FOUR-WHEELER ELECTRIC VEHICLES CHARGING STATION IN BANGLADESH: CHALLENGES AND OPPORTUNITIES 222

Technical Session 4: Business Analytics & Decision-Making**Paper ID: 12**

RHETORIC AND REALITY OF ARTIFICIAL INTELLIGENCE IN APPAREL SECTOR IN SRI LANKA: COMPARATIVE CASE STUDY 121

Paper ID: 23

PARKING SPACE OPTIMIZATION USING MONTE CARLO SIMULATION: CASE STUDY AT THE UNIVERSITY OF MORATUWA 236

Paper ID: 24

ENHANCING OPERATIONAL STRATEGIES IN WATER RESERVOIR MANAGEMENT THROUGH SATELLITE IMAGERY: ANALYSING TEMPORAL ANOMALIES IN WATER SURFACE VARIATIONS FOR CLIMATE ADAPTATION UNDER SEASONAL CHANGES 247

Extended Abstract ID: 26

CYCLING ROUTES TO MITIGATE HEAT STRESS ON CYCLISTS IN TROPICAL URBAN ENVIRONMENTS: AN EXTENDABLE AGENT-BASED MODELING FRAMEWORK FOR STRATEGIC DECISION-MAKING AND BUSINESS APPLICATIONS 259

Paper ID: 32

IMPACTS OF URBAN IMPERVIOUS SURFACE EXPANSION ON RICE FIELDS IN NORTH CENTRAL PROVINCE, SRI LANKA: A GIS-BASED TEMPORAL ANALYSIS 322

Extended Abstract ID: 33

EVALUATING THE EFFECTIVENESS OF ONLINE LEARNING AND TEACHING: A STUDY FOCUSED ON UNDERGRADUATES AT THE UNIVERSITY OF MORATUWA, SRI LANKA 332

Paper ID: 34

LONG-TERM SOIL MOISTURE ASSESSMENT USING THE OPTICAL TRAPEZOID MODEL FOR SUSTAINABLE AGRICULTURE AND ENVIRONMENTAL MANAGEMENT IN THE WESTERN PROVINCE OF SRI LANKA 338

Paper ID: 40

INTRODUCING POWER BI-INTEGRATED HOSHIN KANRI MATRIXES FOR THE SAMPLE ROOM OPERATIONS IN THE APPAREL INDUSTRY 383

ICBR 2024 Advisory Committee

Local Advisory Committee

Prof. G.D. Samarasinghe
University of Moratuwa, Sri Lanka

Dr. H.L. Liyanage
University of Moratuwa, Sri Lanka

International Advisory Committee

Prof. J. Johansson
Luleå University of Technology, Sweden

Prof. M. Pattnaik
Sambalpur University, India

Prof. C. Ranaweera
Lazaridis School of Business and Economics, Canada

Associate Prof. W. Bandara
Queensland University of Technology, Australia

Industry Advisory Committee

Dr. N. Dehigama
Epic Technology Group, Sri Lanka

Dr. D. Seneviratne
TECNALIA Research & Innovation, Spain

Dr. W.K.H. Wegapitiya
LAUGFS Holdings Ltd, Sri Lanka

ICBR 2024 Editorial Committee

Local Editorial Committee

Dr. K.D.A.M. Gunawardana
Editor-in-Chief
University of Moratuwa, Sri Lanka

Dr. D.M.S.M. Dassanayake
University of Moratuwa, Sri Lanka

Dr. T.S. de Silva
University of Moratuwa, Sri Lanka

Dr. A. Wijekoon
University of Moratuwa, Sri Lanka

International Editorial Committee

Prof. J. Johansson
Luleå University of Technology, Sweden

Prof. M. Pattnaik
Sambalpur University, India

Prof. C. Ranaweera
Lazaridis School of Business and Economics, Canada

Assistant Prof. C.K. Dissanayake
Penn State University-Brandywine, USA

Assistant Prof. S. Gallage
Nottingham University Business School, United Kingdom

Assistant Prof. M. Junaid
Asian Institute of Technology, Thailand

Dr. D. Seneviratne
TECNALIA Research & Innovation, Spain

ICBR 2024 Organizing Committee

Chief Advocacy Chair	Senior Prof. N.D. Gunawardena
Conference Chair	Dr. I.M.P.K. Illankoon
Honorary Co-Chair	Emeritus Prof. G. Gunawardane
ICBR 2024 Secretary	Ms. M.A.S. Fathima
BRU Secretary	Dr. K.D.A.M. Gunawardana
BRU Vice Secretary	Mr. W.M.S.N.F. Rajakarunanayake
Finance & Industry Liaison Chair	Dr. G.N. Kuruppu
Publicity & Public Relations Chair	Mr. S.G.S. Hewawalpita
Publicity & Public Relations Co-Chair	Ms. K.M.C.T. Kulasekara
Local Organizing Chair	Ms. H.A.D.R. Gunarathne
Local Organizing Co-Chair	Ms. H.T. Sisara
Management Assistant (Finance)	Ms. J.M.D.P. Jayasinghe
Technical Assistant	Mr. K.D.V. Chathuranga
	Mr. P.D.A.T.U. Kumara
	Mr. M.M. Vidanapathirana

Conference Proceedings edited by:

Dr. K.D.A.M. Gunawardana

Ms. M.A.S. Fathima

Ms. K.M.C.T. Kulasekara

Conference Proceedings Cover designed by:

Mr. M.M. Vishwajith

Mr. M.L.R.S. Maththamagoda

ICBR 2024 Reviewer Panel

International Reviewer Panel

Prof. M. Pattnaik
Sambalpur University, India

Prof. A. Qayyum
*Asian Institute of Technology,
Thailand*

Prof. C. Ranaweera
*Lazaridis School of Business and
Economics, Canada*

Associate Prof. W. Bandara
*Queensland University of Technology,
Australia*

Associate Prof. K. Chen
Trent University, Canada

Associate Prof. G. Smith
*Nottingham University Business
School, United Kingdom*

Assistant Prof. A.S.M. Bakibillah
Tokyo Institute of Technology, Japan

Assistant Prof. C.K. Dissanayake
*Penn State University-Brandywine,
USA*

Assistant Prof. S. Gallage
*Nottingham University Business
School, United Kingdom*

Assistant Prof. M. Junaid
*Asian Institute of Technology,
Thailand*

Assistant Prof. S.M. Rawal
Wilfrid Laurier University, Canada

Assistant Prof. V.J. Sarma
*Nottingham University Business
School, United Kingdom*

Assistant Prof. G. Tanguay
Wilfrid Laurier University, Canada

Dr. A. Mamudu
*Queensland University of Technology,
Australia*

Dr. P. Mathiesen
*Underwood Innovation Lab Pty Ltd,
Australia*

Dr. H. Mehrabi
Kingston University, United Kingdom

Dr. D. Seneviratne
*TECNALIA Research & Innovation,
Spain*

Dr. A. Siriwardana
RMIT University, Vietnam

Dr. N. Vilasini
*Kāinga Ora – Homes and Communities,
New Zealand*

Ms. T. Chandrasiri
*Queensland University of Technology,
Australia*

Ms. N. Herath
*Victoria University of Wellington, New
Zealand*

Local Reviewer Panel

Senior Prof. C. Perera
*Sri Lanka Institute of Information
Technology*

Prof. R.S.S.W. Arachchi
*Sabaragamuwa University of Sri
Lanka*

Prof. N.V. Chandrasekara
University of Kelaniya

Prof. A.K. Kulatunga
University of Peradeniya

Prof. P. Pratheepkanth
University of Jaffna

Prof. D.M. Mudalige
University of Moratuwa

Prof. G.D. Samarasinghe
University of Moratuwa

Prof. V.G.T.N. Vidanagama
Wayamba University of Sri Lanka

Dr. J. Anjana
*Sri Lanka Institute of Information
Technology*

Dr. C.K. De Silva
University of Moratuwa

Dr. U.S.S. Dharmapriya
University of Peradeniya

Dr. A.D. Dharmawansa
Wayamba University of Sri Lanka

Dr. D.M.P.V. Dissanayaka
University of Kelaniya

Dr. T.C. Ediriwickrama
University of Colombo

Dr. J.R. Gamage
University of Moratuwa

Dr. K.D.A.M. Gunawardana
University of Moratuwa

Dr. B.S. Habaragoda
Wayamba University of Sri Lanka

Dr. D. Herath
University of Peradeniya

Dr. A.P. Hewaarachchi
University of Kelaniya

Dr. I.M.P.K. Illankoon
University of Moratuwa

Dr. V.P.T. Jayawardane
University of Moratuwa

Dr. C. Jayawardena
University of Moratuwa

Dr. A. Jeewandara
University of Kelaniya

Dr. H.W.B. Kavinga
University of Kelaniya

Dr. G.N. Kuruppu
University of Moratuwa

Dr. H.L. Liyanage
University of Moratuwa

Dr. D.Y. Mudunkotuwa
University of Sri Jayewardenepura

Dr. S. Pathirana
University of Kelaniya

Dr. S. Sapukotanage
The Open University of Sri Lanka

Dr. C.D. Senanayake
University of Peradeniya

Dr. K.M.S. Senevirathne
University of Moratuwa

Dr. T. Sharmilan
University of Kelaniya

Dr. J. Wettasinghe
University of Vocational Technology

Dr. A. Wijekoon
University of Moratuwa

Dr. D. Wijetunga
University of Colombo

Dr. A. Withanaarachchi
University of Kelaniya

Dr. S.R. Yapa
*Sri Lanka Institute of Information
Technology*

Mr. A.M.A.S.M. Bandara
University of Peradeniya

Mr. I.W.N. Bandaranayake
University of Peradeniya

Ms. M.G.S. Dilanthi
Wayamba University of Sri Lanka

Eng. Mr. M.N.P. Dushyantha
Uva Wellassa University

Mr. M.W. Edirisooriya
University of Moratuwa

Ms. P. Gayathri
University of Kelaniya

Ms. B.M.T.D. Jayasekara
University of Vocational Technology

Ms. P.A.A.U. Jothirathna
Wayamba University of Sri Lanka

Ms. M.N.F. Nuskiya
University of Peradeniya

Ms. C. Oruthotaarachchi
University of Kelaniya

Mr. W.M.S.N.F.
Rajakarunanayake
University of Moratuwa

Ms. K.S.H. Sarathchandra
University of Kelaniya

Mr. C.M. Suwandaarachchi
University of Moratuwa

Ms. W.M.H.U. Wijethunga
University of Peradeniya

Ms. S. Yamuna
University of Peradeniya

Ms. T.S.D. Yapa
University of Moratuwa

Conference Programme

Time	Activity
	Auditorium 2-FOB-UOM
8.00 am – 8.50 am	Arrival of Guests and Registrations
8.50 am – 9.00 am	Lighting Traditional Oil Lamp and National Anthem
9.00 am – 9.05 am	Welcome Address by Dr. I.M.P.K. Illankoon <i>Conference Chair, Director-BRU, UOM</i>
9.05 am – 9.10 am	Address by Prof. G.D. Samarasinghe <i>Dean-FOB, UOM</i>
9.10 am – 9.15 am	Address by Dr. D.P. Chandrasekara <i>Deputy Vice Chancellor, UOM</i>
9.15 am – 9.25 am	Address by Emeritus Prof. G. Gunawardane <i>Conference Co-Chair, California State University, Fullerton, USA</i>
9.25 am – 9.45 am	Address by Prof. U. Kumar <i>Chief Guest, Chair Prof. of Operation & Maintenance Engineering, Director of Luleå Railway Research Center at LTU, Sweden</i>
9.45 am – 9.50 am	Launch of Inaugural Edition of FOB-UOM Magazine
9.50 am – 10.15 am	Tea Break & Networking
10.15 am – 10.35 am	Keynote Address – 1 by Prof. J. Kaluarachchi <i>Prof. of Civil & Environmental Engineering, Former Dean of College of Engineering, Utah State University, USA</i>
10.35 am – 10.55 am	Keynote Address – 2 by Mr. J. Peiris <i>Chief Information Officer, MAS Holdings, Sri Lanka</i>
10.55 am – 11.25 am	Panel Discussion on “Navigating the Landscape of Digital Transformation for a Sustainable Economy”
11.25 am – 11.30 am	Vote of Thanks by Dr. K.D.A.M. Gunawardana <i>Secretary-BRU-UOM</i>
11.30 am – 1.30 pm	Technical Sessions – 1 & 2 (in Room FD1 & Room FD3 at FOB-UOM)
1.30 pm – 2.30 pm	Lunch Break
2.30 pm – 3.00 pm	“Meet the Editor: Who cares what you write?” Session
3.00 pm – 5.00 pm	Technical Sessions – 3 & 4 (in Room FD1 & Room FD3 at FOB-UOM)
4.30 pm – 5.00 pm	Award Ceremony (at Auditorium 2-FOB-UOM)

Address by Conference Co-Chair

Emeritus Prof. G. Gunawardane
Professor of Management Emeritus
California State University, Fullerton, USA
Founder of Sri Lanka Institute of Service
Management



ROLE OF BUSINESS RESEARCH IN ADDRESSING GOVERNMENT POLICY ON IMPROVING PUBLIC SERVICES IN SRI LANKA

Sri Lankan government policy on public services: A key point in President A.K. Dissanayake's government's policy statement at the inaugural session of the 10th Parliament of Sri Lanka (Nov 21, 2024) was "An efficient public service will be established." This is not a new policy. As far back as 2015 (Economynext, Aug 4, 2015) Prime Minister R. Wickramasinghe, stated, "Sri Lanka should overhaul state agencies so that the public would be able to get services more easily."

Significance of the public sector services: Sri Lanka's Department of Census and Statistics Report (2023) states that government and semi-government institutions employ 15% of Sri Lanka's labor force. This is a full one-third of the labor force in the services sector, indicating the significance of the public services segment in the overall services sector.

Research on public service quality and efficiency in Sri Lanka is sparse: Except for a few studies on consumer assessment of selected services (Karunanithy and Rasanayagam, 2013; Karunaratne, Gunawardhana, and Edirisinghe, 2015; Wijesekera and Fernando, 2016; a few studies on e-services in public service: Sensdheera, 2013; Karunasena and Deng, 2012; a few case studies: Jayakody and Sanjeewani, 2005), there have not been studies on issues presently considered as important in services management (Gunawardane, 2024).

Areas of research to focus on, consistent with modern trends in service management, and global studies on public service improvement (Gunawardane, 2017 and 2024):

1. Need for standards on public service delivery
 See standards established by the governments in Australia, USA, Botswana, Indonesia, Ireland, the UK, and South Africa (Gunawardane, 2017)
2. Service quality in public services
 Studies on consumer assessment of public services still follow the archaic five dimensions of service quality (Parasurman et al.,

2018). No attempt is seen to address culturally appropriate service dimensions. This is true in almost all studies of service quality in Sri Lanka. Research methods follow surveys of a sample of consumers with a heavy emphasis on statistical methods and not management implications.

3. Need for customer orientation of public services staff
Training public servants on the core elements: core elements of a customer-oriented public service: Speed, Quality, Equity and fairness, Cost-effectiveness, and Courtesy.
4. Making accurate and timely information available to citizen customers
5. Identification of customer groups (e.g., variations in demographic factors, education, ethnicity, religion, and cultures) and their differing needs/expectations
6. Good complaint management systems
7. Regular customer satisfaction measurement
8. Innovation and technology adoption; digital transformation
9. Regulatory and legal framework

Keynote Addresses

Keynote Address 1

Prof. J. Kaluarachchi
Professor of Civil & Environmental Engineering
Former Dean of College of Engineering, Utah
State University, USA



HIGH-IMPACT ENGINEERING RESEARCH THRUSTS IN THE DIGITAL AND INFORMATION AGE: EXAMPLES FROM THE US

Over the past two centuries, we have witnessed four industrial revolutions that have profoundly transformed economic productivity, societal services, and living standards. The First Industrial Revolution, beginning in the late 1700s, introduced mechanization and coal extraction, particularly in Great Britain, revolutionizing agriculture and transportation. The Second Industrial Revolution fostered the development of gas, oil, and mining, along with significant advancements in communication through inventions like the telephone and telegraph. The Third Industrial Revolution, emerging in the 20th century, focused on nuclear energy, electronics, telecommunications, and computers, enabling milestones such as space exploration in the United States. Today, we are navigating the Fourth Industrial Revolution, driven by the Internet, cyber physical systems, information systems, and the emergence of big data, machine learning, artificial intelligence, and quantum computing. Digitalization is central to this revolution, enhancing efficiencies and productivity across business sectors. Beyond business, digital information and technologies are pivotal in engineering, facilitating innovative discoveries across various domains. This presentation will explore current research and high-impact focus areas within US academic institutions that aim to promote societal development in transportation, sustainable energy, food production, and disease control.

Keynote Address 2

Mr. J. Peiris
Chief Information Officer
MAS Holdings, Sri Lanka



RISING LIKE A PHOENIX: EMBRACING DIGITAL INNOVATION TO NAVIGATE CRISES AND SHAPE THE FUTURE

In a world confronted with unprecedented challenges, we stand at a decisive moment in history where the challenges we face are as profound as the opportunities they present. Rising like a phoenix is more than just a metaphor; it is a testament to our resilience as a species. It is about harnessing the power of adversity to fuel our journey toward progress and transformation. In this digital age, where innovation is the currency of change, it is imperative that we seize the opportunity that we reshape society with the tools at our disposal.

Digital innovation has become the cornerstone of our modern world, empowering us to reimagine the way we live, work, and interact with one another. From artificial intelligence to blockchain technology, from virtual reality to the Internet of Things, the possibilities are limitless. However, with great power comes great responsibility, and it is up to us to ensure that these innovations are wielded for the greater good.

In the wake of the crisis, digital innovation has proven to be a beacon of hope, enabling us to adapt and thrive in the face of adversity. We have witnessed firsthand how technology has facilitated remote work, telemedicine, and distance learning, bridging the gap between isolation and connectivity. We have seen how data analytics and predictive modeling have helped us anticipate and mitigate the spread of diseases among other use cases which have emerged. We have experienced the transformative impact of digital platforms in driving social change and fostering community resilience.

The COVID-19 pandemic was one of the turning points in recent history. It redefined a new world order the “Next Normal” accelerating the adoption of digital technologies in our daily lives. This crisis accelerated the pace of the world’s transition into the new Industrial Revolution, known as Industry 4.0. The crisis forced governments, organizations, businesses, and individuals to adopt technology to survive, grow, and thrive in the new economy.

Digital technology has proved to be a cornerstone of resilience during various global crises, including the COVID-19 pandemic, economic upheavals, and the ongoing battle against climate change. As countries-imposed lockdowns and social distancing measures, digital solutions emerged as vital tools to maintain continuity in daily life. Remote work arrangements enabled businesses to sustain operations while safeguarding their employees' health. Online education platforms ensured that students could continue their learning journey despite school closures, demonstrating the flexibility and accessibility of digital education. Moreover, telehealth services and audio consultations provide critical medical services, alleviating the pressure on healthcare systems. The COVID-19 pandemic highlighted the urgent need for robust digital infrastructures. During the crisis, technology defined a new way of life, breaking the barriers to technology adoption at all the strata of society.

Digital innovation has had a profound impact on economic restructuring. The rise in e-commerce has revolutionized the retail landscape, offering consumers a convenient and secure way to shop. Simultaneously, businesses have seized new opportunities to reach a broader audience and adapt to evolving market demands. Fintech innovations, such as mobile banking, digital payments, and blockchain technology, have transformed the financial services sector. These advancements have enhanced financial inclusion, granting individuals and enterprises in remote or underserved regions access to banking services. Additionally, the gig economy has gained prominence, providing flexible employment opportunities through digital platforms that connect freelancers with global clients.

Digital technology plays a pivotal role in addressing critical global issues, particularly combating climate change. Innovations such as smart grids, renewable energy sources, and energy-efficient technologies are paving the way for a greener future. Digital platforms facilitate data collection and analysis, enabling informed decision-making and the development of effective environmental policies.

Furthermore, digital technology has the potential to reduce social inequality. Access to digital tools and resources empowers marginalized communities, offering opportunities for education, employment, and social engagement. Online learning platforms bridge educational gaps by delivering high-quality courses to students in remote or underserved areas. Social media and communication platforms amplify the voices of underrepresented groups, fostering greater social inclusion and awareness.

In conclusion, a comprehensive and collaborative approach is essential to harnessing the full potential of digital innovation. Progressive policymaking is necessary to encourage innovation while upholding ethical standards and protecting public interests. Investment in digital infrastructure, including expanding broadband access, enhancing cybersecurity measures, and promoting digital literacy, is crucial. Fostering a culture of innovation requires collaboration between the public and private sectors, supporting research and development, and nurturing a mindset that embraces change and creativity.

Governments play a pivotal role in creating an enabling environment for digital innovation. Policies that promote competition, protect intellectual property, and ensure data privacy are essential. Public-private partnerships can drive investment in digital infrastructure, particularly in underserved regions. Additionally, education systems must adapt to the digital age, equipping individuals with the skills needed to thrive in a rapidly evolving landscape.

The private sector, too, has a responsibility to lead by example. Companies must prioritize ethical practices, transparency, and social responsibility. Investing in research and development, fostering a culture of innovation, and embracing diversity are key to driving sustainable growth. Collaboration with governments, academia, and civil society can amplify the impact of digital innovation and address complex global challenges.

Our journey is far from over. As we rise from the ashes of crisis, we must confront the challenges that lie ahead with courage and conviction. We must harness the power of digital innovation to build a more inclusive, sustainable, and equitable society. We must leverage technology to address pressing issues such as climate change, poverty, and inequality. We must empower individuals and communities to be the architects of their own destiny, unleashing their creativity and ingenuity to shape a brighter future for all. Also, use technology to complement and unlock human true potential & improve productivity.

The road ahead may be fraught with obstacles, but as long as we remain steadfast in our commitment to innovation and progress, there is no challenge we cannot overcome. So let us rise like the phoenix, united in our determination to emerge stronger, wiser, and more resilient than ever before. Together, let us seize the opportunity to reshape society with digital innovation and forge a legacy that will endure for generations to come.

I wish for all the success for ICBR 2024 organized by the BRU of the UOM.