

Under the patronage of His Royal Highness

**Prince Khalifa Bin Salman Al Khalifa**

The Prime Minister, Kingdom of Bahrain



## Digital Technology:

Towards a  
Sustainable  
Knowledge-Base  
Inclusive Development

World Association for  
Sustainable Development  
(WASD)

## 15<sup>th</sup> International Annual Conference

Sheraton Bahrain Hotel

16<sup>th</sup> - 18<sup>th</sup> May 2017





His Royal Highness Prince  
**Khalifa Bin Salman Al Khalifa**  
Prime Minister



His Majesty King  
**Hamad Bin Isa Al Khalifa**  
King of the Kingdom of Bahrain



His Royal Highness Prince  
**Salman Bin Hamad Al Khalifa**  
Crown Prince  
Deputy Supreme Commander  
and First Deputy Prime Minister

## WELCOME MESSAGE



**Prof. Abdulla AlHawaj**  
**Founding President**  
**Chairman**  
**Board of Trustees**  
**Ahlia University**

In recent decades, sustainable development has received wide coverage in both academic literature and in the media reflecting the challenges that are facing our Planet Earth including climate change, high population growth, urbanization, environmental degradation, pollution, poverty, and water shortages.

Worldwide, national governments, international institutions, non-governmental organizations, academic institutions and several other local and international bodies have begun to raise concern about the carrying capacity of the ecosystem and the potential impact that natural systems may have on the social, political and economic challenges facing all of us. The concept of sustainable development not only concerns the present, but also the future generations.

The present generations bears an important responsibility to develop, improve, maintain and regenerate planetary resources to meet the needs of the future generations.

The World Association for Sustainable Development (WASD) has made substantial contributions to the field of sustainable development by conducting international conferences on yearly basis bringing together scholars of different academic backgrounds to discuss issues of immediate concern to environmental protection and human survival. This year's conference will be held in the Kingdom of Bahrain sponsored jointly by Ahlia University and WASD.

Ahlia University is proud to host such an international conference under the patronage of His Royal Highness Prince Khalifa Bin Salman Al-Khalifa, the Prime Minister of the Kingdom of Bahrain. The theme of this year conference is 'Digital Revolution, Smart Cities and Performance Improvement Towards a Sustainable Knowledge-Based Inclusive Development.'

In 2008 Bahrain launched the Economic Vision 2030 focusing on 'shaping the vision of the government, society and the economy, based around three guiding principles,

sustainability, fairness and competitiveness.' The objective of the conference is to contribute to Bahrain Vision 2030 through the sharing of knowledge and the exchange of ideas.

Ahlia University is a leading educational institution aiming at endeavoring to support Bahrain Vision 2030 with a view to enhancing Bahrain's capabilities to promote innovation and sustain development.

The raison d'etre of Ahlia University is to increase the stock of human capital by graduating students of high caliber able to meet current labor market demand. The university policy is to establish links with regional and international institutions to attract talent and enrich local quality.

Ahlia University would like to take this opportunity to thank all participants in the conference for their valuable contribution to various fields of knowledge and also for enriching our understanding about sustainability and growth.

We would like to express our deep appreciation to His Royal Highness Prince Khalifa Bin Salman Al-Khalifa, the Prime Minister of the Kingdom of Bahrain and the Government of Bahrain for the great societal achievement to develop our beloved nation and transform our society into new horizon of prosperity and progress.

We are also very grateful to Professor Allam Ahmed, President of WASD and his team for their hard work to make this conference possible. Finally, we would like to thank all those involved in organizing this conference for their valuable contribution to the success of this event.

## PRESIDENT'S MESSAGE



**Prof. Allam Ahmed**  
**Founding President**  
**WASD**

Dear Delegates,

WELCOME to the Fifteenth International Conference of World Association for Sustainable Development (WASD) jointly organized with Ahlia University, Kingdom of Bahrain under the patronage of His Royal Highness Prince Khalifa Bin Salman Al Khalifa, the Prime Minister of Kingdom of Bahrain.

WASD aims to promote the exchange of knowledge, experience, information and ideas among academicians, scholars, professionals, policy & decision makers, industry, executives, students, etc to improve the mutual understanding of the roles of science and technology in achieving sustainable development (SD) all over the world. To this end, WASD organises different activities which include high quality refereed publications, international conferences and seminars, development projects and other activities.

We aimed to pull together a conference that focused on some of the key policies and challenges facing the entire world and it is certainly an exciting, if uncertain, time to hold a conference focusing on the theme "Digital revolution, smart cities and performance improvement towards a sustainable knowledge-based inclusive development". Among the various topics to be discussed during the conference are: the impact of digital revolution on performance efficiency particularly in the public sector and consequently achieve SD and the Sustainable Development Goals (SDG); urbanisation towards building smart cities to leverage developments in technology to improve the daily lives of citizens; economic security and future sustainability in the world particularly those countries heavily depending on oil; localised approaches to support sustainable knowledge-based inclusive growth; improving performance and effectiveness in public sectors and reducing the deficit; and the urgent need for radical reform to reduce inequalities in income and wealth, reduce the size of the public sector, enhance people capabilities, reduce excessive consumption and strengthen private enterprises.

The response to our call-for-papers has been tremendous and encouraging with more than 120 abstracts and papers received covering a wide range of focus and scope of the theme to the extent that we had a difficulty in deciding which papers should be presented in this conference.

We have finally selected more than 35 presentations with an interesting profile for this conference covering a wide geographical spectrum from Africa, America, Asia, Australia, Caribbean, Europe to the Middle East.

I am also delighted that we have a selection of such keynote speakers during the three days of the conference, all of whom have kindly giving up their time to travel and talk in the conference and share with us their expertise and knowledge.

We are grateful to all authors for their valuable contribution and to all reviewers for graciously offering their invaluable comments that have enriched the quality of the papers in this conference and also for making available to us their valuable time and efforts.

We would like also to thank Ahlia University, Bahrain particularly Professor Abdulla Y. Al Hawaj (Founding President & Chairman of Board of Trustees), Professor Mansoor Alaali (President Ahlia University), Professor Bakr Ahmad Hassan (Vice President for Academic Affairs), Professor Shawqi Al Dallal (Acting Dean of College of Medical & Health Sciences and President's advisor for Futuristic Studies and Innovation), Professor Amer Al-Roubaie (Advisor, Capacity Building and Academic Collaboration), Dr. Thaira M. Al Shirawi (President Assistant for Marketing, Media and Public Relations) and Husain Mohamed Habib (Manager, Professional Relations), for their generosity and full support to the 2017 Conference as well as their highly professional and dedicated staff for all their help and support during the conference and for providing us the opportunity and venue for this conference in the beautiful city of Manama.

We would like also to thank all the members of WASD organizing committee including Patricia Garcia (Coordinator and Social Media), Janet French (Editor), N. Joseph Navinraj (Publishing), Richard James (Webmaster), Joseph Adamson (Audio/Visual) and Vicky Trainer (Graphic Designer) for their continuous and endless assistance and support to the conference.

Finally I hope that you will find the conference informative and engaging and wishing you all a very fruitful, interesting, enjoyable and successful conference. Any feedback you can provide will be greatly appreciated as we are always looking at ways in which we can improve your experience.

## TUESDAY 16<sup>th</sup> MAY 2017

**08:15** Arrival Refreshment and Registration  
**08:45** Main Reception Lounge

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### Session 1: Innovation and Knowledge management

Chair: Prof. Amir Sharif

Professor of Operations Management and Founding Director,  
Operations and Supply Chain Systems (OASIS) Research Group,  
Brunel University, United Kingdom

**09:00**  
**10:00**

Rapporteur: Mohamad Amin Hasbini

Senior Security Researcher, Global Research and Analysis Team  
Kaspersky Lab, United Arab Emirates

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#### 1. Youth urban innovation: educational platform for Smart City Planning

Nuha Eltinay  
Arab Urban Development Institute  
Kingdom of Saudi Arabia

#### 2. End-users' satisfaction with the quality of innovative healthcare technologies in Bahrain: a case study of hospital information systems

Prof. Mukhtar Al-Hashimi  
Ahlia University, Kingdom of Bahrain  
Mishleen M. Aqleh  
Ahlia University, Kingdom of Bahrain

#### 3. Dynamic model for the knowledge management and measurement of intellectual capital in services companies

Dr. Víctor Hugo Medina García  
Distrital University, Colombia  
Elmer Yesid Fajardo Rodríguez  
Distrital University, Colombia  
Lina Maria Medina Estrada  
Distrital University, Colombia

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**10:00**  
**10:15** Tea/Coffee Break, Main Reception Lounge

### Session 2: Water, energy and the environment

Chair: Prof. Shawqi Al Dallal

Acting Dean  
College of Medical & Health Sciences  
President's Advisor for Futuristic Studies and Innovation  
Ahlia University, Kingdom of Bahrain

**10:15**  
**11:45**

Rapporteur: dr. Moazzem Hossain

Associate Professor,  
Griffith University, Australia

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#### 4. Securing the future of Food, Water and Energy in the GCC

Prof. Amir M. Sharif  
Brunel University, United Kingdom  
Prof. Zahir Irani  
University of Bradford, United Kingdom

#### 5. Water governance and technologies in the South-West national capital region of Delhi: challenges of transformative sustainable change

Prof. Rranav N. Desai  
Jawaharlal Nehru University, India

#### 6. Experimental application of Centrifugal Separation Techniques "CST" on reclaiming produced wastewater from oil refinery, Khartoum State

Dr. Sarra A. M. Saad  
Ministry of Higher Education & Scientific Research, Sudan

Montaisr A. H. Khider  
Ministry of Environment, Sudan

Dr. Moawia Y. Babiker  
Ekhtibarat Soil and Water Test Services, Sudan

Sufyan A. M. Osman  
Ministry of Oil, Sudan

#### 7. An investigation of the utilisation of energy and water conservation technologies in Bahrain: entrepreneurial opportunity

Prof. Mukhtar Al-Hashimi  
Ahlia University, Kingdom of Bahrain

Sayed Dheya H. Ahmed  
Ahlia University, Kingdom of Bahrain

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**11:45**  
**12:00** Tea/Coffee Break, Main Reception Lounge

**TUESDAY 16<sup>th</sup> MAY 2017**

**( CONT. )**

**Session 3: Keynote Speakers**

**12:00**  
**13:30**

**Chair: Prof. Zahir Irani**

Dean, Faculty of Management and Law  
University of Bradford, United Kingdom

**Rapporteur: Dr. Thaira M. Al Shirawi**

President Assistant for Marketing, Media and Public Relations  
Ahlia University, Kingdom of Bahrain

**14:00**  
**16:30**

Workshops

**8. Government, universities and society:  
implications of the Digital Transformation**

**Dr. Jason J. Blackstock**

Head of Department  
Science, Technology, Engineering and Public Policy  
University College London  
London, United Kingdom

**9. Challenges in measuring knowledge management results and impact:  
IFAD's experience**

**Helen Gillman**

Senior Knowledge Management Specialist  
Global Engagement, Knowledge and Strategy Division  
International Fund for Agricultural Development (IFAD)  
Rome, Italy

**10. Graduate employability in a changing world**

**Prof. Ronald McQuaid**

Professor of Work and Employment, University of Stirling  
Former Director, Employment Research Institute  
Stirling, United Kingdom

**13:30**  
**14:00**

Lunch and Networking, Restaurant

## WEDNESDAY 17<sup>th</sup> MAY 2017

**08:15** Arrival Refreshment and Registration  
**08:45** Main Reception Lounge

### Session 4: Opening of the Conference and Keynotes

**09:00** Chair: Prof. Mansoor Alaali  
President  
Ahlia University, Kingdom of Bahrain  
**10:15** Rapporteur: Dr. Joao Pinelo Silva  
University of Bahrain, Kingdom of Bahrain

### WELCOME

#### Prof. Abdulla Y. Al Hawaj

Founding President and Chairman of Board of Trustees, Ahlia University  
Manama, Kingdom of Bahrain

#### Prof. Allam Ahmed

President, World Association for Sustainable Development (WASD)  
Director, Middle Eastern Knowledge Economy Institute (MEKEI)  
London, United Kingdom

### KEYNOTE

#### 1. Knowledge Management in the United Nations and the 2030 Agenda: breaking down the silos

Dr. Petru Dumitriu  
Inspector  
Joint Inspection Unit, United Nations  
Geneva, Switzerland

#### 2. Governments in the digital age: progress, priorities and policies

Samia M. Melhem  
Lead Policy Specialist, Transport and ICT  
Global Lead, Digital Development Community of Practice  
World Bank  
Washington DC, United States

**10:15** Tea/Coffee Break, Main Reception Lounge  
**10:45**

### Session 5: Smart cities and public parks

**10:45** Chair: Nuha ElTinay  
Director of Urban Planning & Sustainable Development  
**11:45** Arab Urban Development Institute, Kingdom of Saudi Arabia

Rapporteur: Mohammad Samsul Hoque  
Government of Bangladesh, Bangladesh

#### 3. Investigating the role of information security management in smart city organisations

Mohamad Amin Hasbini  
Kaspersky Lab, United Arab Emirates  
Dr. Tillal EIDabi  
Brunel University, United Kingdom

Dr. Ammar Al-Dallal  
Ahlia University, Kingdom of Bahrain

#### 4. The making of historic cities smart: case study of the historic Jeddah; GIS BIM and HBIM projects

Dr. Osamah M. N. El-Gohari  
Al Turath Foundation, Kingdom of Saudi Arabia

#### 5. Bahrain parks: a cloud platform for planning, designing, and managing public parks

Dr. Joao Pinelo Silva  
University of Bahrain, Kingdom of Bahrain

#### 6. Impact of intersections on the performance of position-based routing protocols for VANETs: a case study - Smart Cities

Dr. Ali Mohammed Mansoor  
University of Malaya, Malaysia  
Dr. Adel M. Sarea  
Ahlia University, Kingdom of Bahrain

Dr. Aznul Qalid Md Sabri  
University of Malaya, Malaysia  
Suleman Khan  
University of Malaya, Malaysia

**11:45** Tea / Coffee Break, Main Reception Lounge  
**12:00**

**Session 6: Culture, gender and management**

12:00  
13:00

**Chair: Dr. OSAMAH M. N. EL-GOHARI**  
Al Turath Foundation  
Kingdom of Saudi Arabia

**Rapporteur: Dr. YAGOUB ALI GHANGI**  
Associate Professor  
Ahmed Bin Mohamed Military College, Qatar

**7. The impact of neuromarketing advertising on children: intended and unintended effects**

**Amani Al Abbas**  
Brunel University, United Kingdom  
**Dr. Maria Saberi**  
Ahlia University, Kingdom of Bahrain

**Dr. Weifeng Chen**  
Brunel University, United Kingdom

**8. The relationship between multicultural teams and project performance**

**Sayed Mahdi Fadhul**  
Brunel University, United Kingdom

**Dr. Monomita Nandy**  
Brunel University, United Kingdom

**9. Board gender diversity: a review of the Literature**

**Reem Khamis**  
Brunel University, United Kingdom  
**Dr. Adel Al Sarea**  
Ahlia University, Kingdom of Bahrain

**Dr. Tillal EIDabi**  
Brunel University, United Kingdom

13:00  
13:15

Tea / Coffee Break, Main Reception Lounge

**Session 7: Public health and management**

13:15  
14:15

**Chair: Prof. Mukhtar Al-Hashimi**  
Ahlia University,  
Kingdom of Bahrain

**Rapporteur: Dr. Rashida Abusin**  
Associate Professor,  
University of Bahri, Sudan

**3. The nutritional status of inpatient drug addicts and the impact of Medical Nutrition Therapy (MNT) intervention on recovery**

**Dr. Nahlaa A. Khalifa**  
King Abdulaziz University, Kingdom of Saudi Arabia

**4. Investigating obesity related behaviours in friendship networks among the youth: a systemised review**

**Prof. Habin Lee**  
Brunel University, United Kingdom  
**Noor ALSayed**  
Brunel University, United Kingdom

**Dr. Tillal EIDabi**  
Brunel University, United Kingdom

**5. International University of Africa Breast Cancer and HIV/AIDS initiatives for sustainable development in Sudan**

**Dr. Hind Mamoun Beheiry**  
International University of Africa, Sudan

**6. Hand grip strength, body mass index and anthropometric measurements among female university students: preliminary data in Bahrain**

**Dr. Dalia M. Kamel**  
Ahlia University, Kingdom of Bahrain  
Cairo University, Egypt

**Fatima E Mirza**  
Ahlia University, Kingdom of Bahrain

**Fatima H. Al-Zaki**  
Ahlia University, Kingdom of Bahrain  
**Zahra A Abdulla**  
Ahlia University, Kingdom of Bahrain

**Dr. Jenan J. Al-Sehali**  
Ahlia University, Kingdom of Bahrain

14:15  
14:45

Lunch and Networking, Restaurant



**WEDNESDAY 17<sup>th</sup> MAY 2017**

**( CONT. )**

**Session 8: Science and technology management**

**Chair: Prof. Pranav N. Desai**

**14:45**  
**15:45**

Chair Centre for Studies in Science Policy  
School of Social Sciences, Jawaharlal Nehru University, India

**Rapporteur: Dr. Sarra A. M. Saad**

Associate Professor  
Ministry of Higher Education & Scientific Research, Sudan

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**7. The role of education and culture in bridging the digital gap: a journey to the future**

**Prof. Shawqi Al Dallal**

Ahlia University, Kingdom of Bahrain

**8. Influence of chlorsulfuron and 2,4-D on management of Striga hermonthica on sorghum**

**Dr. Rashida Abusin**

University of Bahri, Sudan

**Elfatih Ahmed**

Agricultural Research Corporation, Sudan

**Mohammed Hassan**

Environment and Natural Resources and Desertification Research Institute,  
Sudan

**Babiker Mohammed Mahgoub**

University of Bahri, Sudan

**Prof. Abdelgabbar ElTayeb Babiker**

Environment and Natural Resources and Desertification Research Institute,  
Sudan

**9. Bio-economy and its connection to the knowledge-based economy**

**Prof. ElSadig Musa Ahmed**

Multimedia University, Malaysia

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**16:00**

Sightseeing / Tour

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**20:45**  
**22:00**

Dinner and Networking

## THURSDAY 18<sup>th</sup> MAY 2017

**08:15** Arrival Refreshment and Registration  
**08:45** Main Reception Lounge

### Session 9: Keynote Speakers

**09:00** Chair: Prof. Bakr Ahmad Hassan  
**10:00** Vice President for Academic Affairs  
Ahlia University, Kingdom of Bahrain  
Rapporteur: Prof. EISadig Musa Ahmed  
Chair Center for Globalization and Sustainable Research  
Multimedia University, Malaysia

### 10. Personalized medicine is the future sustainable knowledge for human wellbeing

Prof. Moiz Bakhiet  
Chairman, Department of Molecular Medicine, CMMS, Arabian Gulf University  
Consultant Neurologist, King Abdulla Medical City  
Director, Princess Al-Jawhara Center for Molecular Medicine, Genetics and  
Inherited Disorders  
Manama, Kingdom of Bahrain

### 11. The role of KM in achieving efficiency, effectiveness and value for Money in the Public Sector

Prof. John Adams  
Head, Department of Economics  
British University in Egypt  
Cairo, Egypt

### 12. The role of digitally enabled knowledge in driving successful programs

Mohamed ElHag  
Advisory Senior Manager, Performance Improvement-Programme Management  
Technology Lead, Middle Eastern Knowledge Economy Institute (MEKEI)  
Ernest and Young  
Doha, Qatar

**10:30** Tea/Coffee Break, Main Reception Lounge  
**10:45**

### Session 10: Keynote Speakers

**10:45** Chair: Prof. AMER AL-ROUBAIE  
**11:45** Advisor Capacity Building and Academic Collaboration  
Ahlia University, Kingdom of Bahrain  
Rapporteur: Dr. EMAN MOHAMMD SALEH  
Deputy Dean for Studies, Development & Community Service  
Imam Abdulrahman Bin Faisal University, Dammam  
Kingdom of Saudi Arabia

### 13. The migration of scholars and displacement of knowledge ( هجرة العلماء وتهجير العلم )

Fawaz M. M. Al Dkheel  
Consultant and Development Specialist  
Member of the Regional Social Responsibility Network  
Al-Khobar, Kingdom of Saudi Arabia

### 14. The MIND: progressive development versus prohibited ideology ( العقل بين الانماء المنشود والافساد المردود )

Dr. Jamal N. I. Hassan  
Associate Professor  
College of Arts  
Imam Abdulrahman Bin Faisal University  
Dammam, Kingdom of Saudi Arabia

**11:45** Tea/Coffee Break  
**12:00** Main Reception Lounge

**THURSDAY 18<sup>th</sup> MAY 2017**

**( CONT. )**

**Session 11: Finance and entrepreneurship development**

Chair: Prof. Abdelgadir Warsama Ghalib  
Legal Counsel & Professor of Law  
Kingdom of Bahrain

**12:00**  
**13:30**

Rapporteur: Hasan Ghura  
Box Hill College  
Kuwait

**Session 12: Digital divide and the knowledge-based economy**

Chair: Dr. VÍCTOR HUGO MEDINA GARCÍA, Senior Lecturer,  
Distrital University, Colombia

**14:00**  
**15:20**

Rapporteur: Dr. TILLAL ELDABI, Brunel University, United King-  
dom

**15. Towards a theoretical framework between opportunity entrepreneurship, institutions and economic development**

Hasan Ghura  
Box Hill College, Kuwait

Dr. Xiaoqing Li  
Brunel University, United Kingdom

**16. Entrepreneurship education and training: a gateway towards a knowledge-based and diversified economy in Qatar**

Dr. Yagoub Ali Ghangji  
Ahmed Bin Mohamed Military College, Qatar

**17. Apprenticeships: start today and be your own boss**

Almoize Ahmed  
AA Accountancy, United Kingdom

**18. Why most of small startup businesses fail with 3 years in Saudi Arabia**

Motaz AbdulRahman AISolaim  
University of Brighton, United Kingdom

**19. Closing the digital divide: a path towards sustainable knowledge-based inclusive development**

Prof. Amer Al-Roubaie  
Ahlia University, Kingdom of Bahrain

**20. Sustainable growth and development: why do digital disruptions matter?**

Dr. Moazzem Hossain  
Griffith University, Australia

Mohammad Samsul Hoque  
Government of Bangladesh, Bangladesh

**21. Legalization of digital revolution in Bahrain: case study of E- transactions of 2002 and E-crimes Laws of 2014**

Prof. Abdelgadir Warsama Ghalib  
Legal Counsel & Professor of Law, Kingdom of Bahrain

**22. FDI inflows spillover effect implications on the Asian-Pacific's catching up process**

Prof. ElSadig Musa Ahmed  
Multimedia University, Malaysia

**13:30**  
**14:00** Lunch and Networking  
Restaurant

**15:30** End of Conference

## WORKSHOPS

TUESDAY 16<sup>th</sup> MAY 2017

### Entrepreneurship and SMEs Development for Graduates

14:00 - 16:30 Workshop and Q/A

Human capital (knowledge, abilities and skills) is considered as stimulus of the innovation process for economic growth and development. This workshop has been designed to introduce a variety of perspectives on entrepreneurship and SMEs in the public and private sectors. The Concise Oxford Dictionary defines an entrepreneur as: "a person who undertakes an enterprise or business with the chance of profit or loss; a contractor acting as an intermediary; the person taking effective control of a commercial undertaking ... from the French *entreprendre*, to undertake". Entrepreneurs have an important role in helping the economy to deal with innovation and change and the associated risks and uncertainty. This workshop will discuss four different perspectives for considering who entrepreneurs are. The first set looks at the role or function of entrepreneurs in the economy such as acting as risk takers, resource allocators, and innovators. The second considers that entrepreneurs are those who exhibit particular forms of behaviour. The third set focuses upon the characteristics of entrepreneurs, and the fourth set links entrepreneurship to particular events, such as the creation of a new firm or organisation. There is a large degree of overlap between these differing perspectives, but each can help us to understand various aspects of the entrepreneurship process and entrepreneurs.

#### Workshop outlines

- Are entrepreneurs different?
- Can entrepreneurs be created?
- Environmental essentials: economic, social and political.
- Designing entrepreneurial incentives.
- Differing definitions and perspectives of entrepreneurship.
- Some theories of entrepreneurship.
- Examples: SMEs; employee owned businesses and entrepreneurship; social entrepreneurship; networks and entrepreneurship.
- Implications of the perspectives for individuals, the economy and society.

#### Key Outcomes

- Understanding the essentials of entrepreneurship.
- Understand differing definitions and perspectives of entrepreneurship and discuss their main components.

- Assess the different issues covered by each of these perspectives.
- Assess critically the nature and purpose of generalist theories of entrepreneurship and apply a generalist theoretical framework to case studies of small business entrepreneurs.
- Develop the essential skills and competencies necessary to plan, monitor and control different tasks and events.
- Meeting with Entrepreneurs and Businessmen for Q&A.

#### Target audience

- Graduates, alumni and students
- Policy makers
- ICT Practitioners
- Non Government Organisations
- Researchers and academics

#### Course structure

- Interactive workshop with set of activities to help you engage with the knowledge and concepts introduced within the workshop.
- Your tutors will be on hand to guide you through the course and will expect you to bring to bear personal experience and reflection on the topics covered.
- Group work will be required for participants to engage in the workshop. Such activity allows participants to embed the new knowledge within their experience through active discussion and conceptual challenges.

#### Facilitators

**Professor Abudlla Y. Al Hawaj**  
Founding President  
Chairman of Board of Trustees  
Ahlia University  
Manama, Kingdom of Bahrain

**Professor Ronald McQuaid**  
Professor of Work and Employment  
Management, Work and Organisation Division  
Stirling Management School  
University of Stirling  
Stirling, UK

**Professor John Adams**  
Head  
Department of Economics  
British University in Egypt  
Cairo, Egypt

**Almoize Ahmed**  
Director  
AA Accountancy  
Birmingham, United Kingdom

## WORKSHOPS

TUESDAY 16<sup>th</sup> MAY 2017

### Innovation and Knowledge Management: preparing graduates for the Digital Economy

14:00 - 16:30 Workshop and Q/A

Human capital (knowledge, abilities and skills) is considered as stimulus of the innovation process for economic growth and development. Innovation is a key driver of knowledge creation and economic growth. It empowers individuals, groups and organizations to find solutions to social and economic challenges. Job creation, economic diversification and the act of inventing new products and services are increasingly seen as vital for the future development of the country. Policymakers seek to ensure that national economies benefit from the information revolution by building capacity for the creation of new ideas, technologies, organizational know-how and innovation. Ideas, knowledge and information are exchanged, utilized and disseminated through modern technologies to empower domestic enterprises and national economies. In recent years, the increasing focus on innovation has encouraged public and private institutions to invest in the development of new products and new technologies to gain competitive advantage and sustain economic growth.

#### Workshop outlines

- Develop a deeper understanding of the theoretical and practical aspects to the role of human capital in innovation and development.
- Learn about the importance of innovation and human capital development in the new economy and engage the critical discourses of Knowledge Economy and the role of human capital.
- Develop the essential skills and competencies necessary to invest in new ideas and new methods to increase productivity and enhance competition.
- Develop your creative thinking and enhance your capabilities to contribute to the growth and development of the economy.
- Understand innovation management and how can innovation contribute and enhance competitiveness.
- Assess critically the nature and purpose of generalist theories of innovation management and apply a generalist theoretical framework to case studies of innovation management.

#### Key Outcomes

- Introduction to innovation and KM.
- The importance of innovation for development.
- Innovation versus knowledge.
- Components of the human capital.
- Understanding the knowledge-based economy.
- Creativity and new ideas.
- Talents and capacity building.

#### Target audience

- Graduates, alumni and students
- Policy makers
- ICT Practitioners
- Non Government Organisations
- Researchers and academics

#### Course structure

- Interactive workshop with set of activities to help you engage with the knowledge and concepts introduced within the workshop.
- Your tutors will be on hand to guide you through the course and will expect you to bring to bear personal experience and reflection on the topics covered.
- Group work will be required for participants to engage in the workshop. Such activity allows participants to embed the new knowledge within their experience through active discussion and conceptual challenges.

#### Facilitators

##### **Professor Allam Ahmed**

Director  
Middle Eastern Knowledge Economy Institute (MEKEI)  
London, United Kingdom

## WORKSHOPS

TUESDAY 16<sup>th</sup> MAY 2017

### Smart Cities and Urban Planning

14:00 - 16:30 Workshop and Q/A

This workshop has been designed to introduce the principles of Smart City design and urban planning in the MENA Region. The aim is to develop the essential skills and competencies necessary for decision makers to plan, identify and examine the objectives, advantages, drawbacks, models, stages and requirements of Smart City Urban Planning Sustainable framework. The workshop aims to enable municipalities, private sectors, non-profit organizations, and representative from science and academia to develop strategies for making our cities smarter, and accommodate the cultural dimensions of our societies. At the end of the workshop, the attendees should be able to acquire a comprehensive knowledge and practical experience about how to construct cities adopting smart growth principles, effective urban planning models, ICTs and low carbon energy systems.

#### Key Outcomes

The workshop will provide city to city knowledge exchange, to identify MENA regional Smart City innovations, opportunities and constraints, and addresses the practical challenges that policy makers, city planners, engineers, designers, and government officials face as they seek to build, upgrade and exploit smart city knowledge based inclusive development within their organizations. Upon completion of the course, attendees will write a report and present findings on their understandings of the key smart city urban planning solutions, the best global practices on the subject, and brainstorm the local implementation challenges to be addressed to develop future innovative solutions.

#### Key Outcomes

- Understand the concept of smart cities from different perspectives: innovation, policy, and practice.
- Identify drivers and challenges to smart cities development.
- Understand the building blocks of smart cities such as big data solutions, service-oriented models, and value networks.
- Compare top-down and bottom-up approaches to smart cities development.
- Analyse leading business models of smart cities around the globe to identify common characteristics in cities' smart planning and development, while also noting differences between them.
- Evaluate the impact of smart city on a national and global scale.
- Develop a Smart City Regional framework for the MENA.

#### Target audience

- Policy makers
- ICT Practitioners
- Non Government Organisations
- Architects
- Spatial planners
- Engineers
- Urban designers
- Researchers, academics, and students

#### Course structure

- Interactive workshop with set of activities to help you engage with the knowledge and concepts introduced within the workshop.
- Your tutors will be on hand to guide you through the course and will expect you to bring to bear personal experience and reflection on the topics covered.
- Group work will be required for participants to engage in the workshop. Such activity allows participants to embed the new knowledge within their experience through active discussion and conceptual challenges.

#### Facilitators

##### Nuha Eltinay

Director  
Urban Planning and Sustainable Development  
Arab Urban Development Institute (AUDI)  
City Development Strategy (CDS) Programme  
Riyadh, Kingdom of Saudi Arabia

##### Prof. Shawqi Al Dallal

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## REGISTRATION

The delegate registration fee includes access to conference sessions, three lunches and a dinner, mid-morning and afternoon coffee breaks, conference program and proceedings, and a one-year subscription to WASD journals for delegates from developing countries. On receipt of your booking an invoice will be sent to you for payment.

PARTICIPATION FEES	
Bahrain and GCC	\$600 USD
Students	\$400 USD
Government or industry	\$1,000 USD

Participants can directly access the WASD website to register at:

<http://www.wasd.org.uk/bahrain-2017/registration-form/>

alternatively they can fillout the registration form shown below and contact Ahlia University [ (+973) 39664218 or (+973) 39625614 ] for payment arrangement.

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Address	
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Contact number	
Nationality	
Gender	<input type="checkbox"/> Female <input type="checkbox"/> Male

## REGISTRATION

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Would you like to participate in any of the following workshops:

- Smart Cities and Urban Planning
- Knowledge Management:  
concepts, process and technology
- Game-Based Learning:  
Disruptive Approaches to Education, Learning, Training, and Development
- None of the Above



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