Additionally, this book should be useful for scientists, experts, and consultants associated with the forestry sector.

Nile River Basin This volume of Advances in Intelligent Systems and Computing contains accepted papers presented at IBCA2014, the 5th International Conference on Innovations in Bio-inspired Computing and Applications. The aim of IBCA 2014 was to provide a platform for world research leaders and practitioners, to discuss the full spectrum of current theoretical developments, emerging technologies, and innovative applications of Bio-inspired Computing. Bio-inspired Computing remains to be one of the most exciting research areas, and it is continuously demonstrating exceptional strength in solving complex real-life problems. The main driving force of the conference was to further explore the intriguing potential of Bio-inspired Computing. IBCA 2014 was held in Ottawa, Czech Republic and hosted by the VSB- Technical University of Ostrava.

International Conference on Communication, Computing and Electronic Systems This book constitutes the proceedings of the Second International Conference on Information and Communication Technology for Development for Africa, ICT4ADA 2019, held in Bahir Dar, Ethiopia, in May 2019. The 29 revised full papers were carefully reviewed and selected from 69 submissions. The papers address the impact of ICT in fostering economic development in Africa. In detail they cover the following topics: artificial intelligence and data science; wireless and mobile computing; and Natural Language Processing. Concepts, Processes, Applications and Emerging Opportunities in Industrial Engineering Realizing that water, energy and food are the three pillars to sustain the growth of human population in the future, this book deals with the three above aspects with particular emphasis on water and energy. In particular, the book addresses applications of membrane science and technology for water and wastewater treatment, energy and environment. Th

A History of African Higher Education from Antiquity to the Present This book constitutes the refereed post-conference proceedings of the 6th International Conference on Advancement of Science and Technology, ICAST 2018, which took place in Bahir Dar, Ethiopia, in October 2018. The 47 revised full papers were carefully reviewed and selected from 71 submissions. The papers present economic and technological developments in modern societies in five tracks: agro-processing industries for sustainable development, water resources development for the shared vision in blue Nile basin, IT and computer technology innovation, recent advances in electrical and computer engineering, progresses in product design and system optimization.

This book will be highly used by water resource managers and extreme event researchers who are interested in understanding the processes and teleconnectivity of large-scale climate dynamics and extreme processes, and extreme events management, adaptation and mitigation. Each of the book's chapters provide background and theoretical foundations followed by approaches used and results of the applied studies. It highlights how the paradigms of interventions and approaches to urban management are shifting, indicating that urban governance is becoming increasingly important in dealing with wicked issues, like climate change and social and economic inequalities in cities.

Proceedings of the Second International Afro-European Conference for Industrial Advancement AECIA 2015 Until recently, Eurocentrist history professors taught that it was the Europeans who brought higher education to the African continent. While the Europeans have indeed influenced African education in recent times, there is some vital information that most history books leave out: for centuries before the arrival of the Europeans, the vast and advanced African civilizations already had sophisticated universities and other institutions of higher education to boast about. This book is an attempt to fill the canon in today's literature regarding this topic. It will be of interest to those researching the accurate, non-Euro-centric history of Africa.

Advances of Science and Technology Given the multidisciplinary nature of our object of study, sustainability, we have divided this book into twelve chapters. In the first four, we cover the content required to learn how to start a business and ensure companies based on sustainability. The following chapters provide guidance to help transform sustainability strategies across cultures. These processes are analyzed through the Triple Bottom Line perspective, which effectively describes the primary objectives of sustainability. The last chapters analyze current trends in sustainable development, framing education as a powerful tool to facilitate the transition to more sustainable forms of development. Through these chapters, the understanding of the theoretical concepts is facilitated and examples of sustainable enterprises are made available to the reader that serves as a reference and that allow the development of practical activities.

Radiation Tolerant Electronics This book advances an in-depth, comprehensive analysis of flagship universities in Africa – the largest, most selective, and most prestigious universities on the continent. The book draws from empirical and specific case-studies, including Botswana, Egypt, Ethiopia, Ghana, Kenya, Mauritius, Nigeria, Senegal, Tanzania, and Zambia. This volume gives the reader a perspective on the role of flagship universities in African countries, not only within Africa, but across the globe. The book will be of great significance to students and researchers in the field of education, particularly those with an interest in sociology and politics of higher education.

T-Byte Hybrid Cloud Infrastructure

Computational Collective Intelligence

Information and Communication Technology for Development for Africa This book is a social—ecological system description and feedback analysis of the Lake Tana Basin, the headwater catchment of the Upper Blue Nile River. This basin is an important local, national, and international resource, and concern about its sustainable development is growing at many levels. Lake Tana Basin outflows of water, sediments, nutrients, and contaminants affect the water body in the Blue Nile basin. In the Blue Nile River basin, the Lake Tana basin has been a UNESCO Biosphere Reserve; the basin has been designated as a key national economic growth corridor in the Ethiopian Growth and Transformation Plan. In spite of the Lake Tana Basin's importance, there is no comprehensive, integrated, system-wide description of its characteristics and dynamics that can serve as a basis for its sustainable development. This book presents both the social and ecological characteristics of the region and an integrated, system-wide perspective of the feedback links that shape social and ecological change in the basin. Finally, it summarizes key research needs for sustainable development.

Membrane Technology for Water and Wastewater Treatment, Energy and Environment

Social and Ecological System Dynamics The search for alternative, renewable sources of fuel and energy from plants, algae, and waste materials has catalyzed in recent years. With the growing interest in bioenergy and development and production there has been increasing demand for a broad ranging introductory text in the field. Bioenergy: Principles and Practices provides an invaluable introduction to the fundamentals of bioenergy feedstocks, processing, and industry. Bioenergy provides readers with an understanding of foundational information on 1st, 2nd, and 3rd generation biofuels. Coverage spans from feedstock production of key energy sources such as grasses, cane, and woody plants through chemical conversion processes and industrial application. Each chapter provides a thorough description of fundamental concepts, definitions of key terms, case studies and practical examples and exercises. Bioenergy: Principles and Practices will be an essential resource for students, bioengineers, chemists, and industry personnel training key concepts of bioenergy science to valuable real world application.

Afro-European Conference for Industrial Advancement The volume comprises of papers presented at the First CADEC-2019 conference held at Vellore Institute of Technology-Andhra Pradesh, Amaravati, India. The book contains contributions in various areas of electronics and communication technologies. The papers are simulated results in various areas of electronics and communication technologies. The papers are simulated results in various areas of electronics and communication technologies.

How Nations Learn This volume contains accepted papers presented at AECIA2014, the First International Afro-European Conference for Industrial Advancement. The aim of AECIA was to bring together the foremost experts as well as excellent young researchers from Africa, Europe, and the rest of the world to disseminate latest results from various fields of engineering, information, and communication technologies. The first edition of AECIA was organized jointly by Addis Ababa Institute of Technology, Addis Ababa University, and VSB - Technical University of Ostrava, Czech Republic and took place in Ethiopia’s capital, Addis Ababa.

Software development and management: an overview

Pages 2/3
theoretical developments, emerging technologies, and innovative applications of Bio-inspired Computing. Bio-inspired Computing is currently one of the most exciting research areas, and it is continuously demonstrating exceptional strength in solving complex real life problems. The main driving force of the conference is to further explore the intriguing potential of Bio-inspired Computing. IBICA 2013 was held in Ostrava, Czech Republic and hosted by the VSB - Technical University of Ostrava.

Cyberpace This volume contains accepted papers presented at AECIA2014, the First International Afro-European Conference for Industrial Advancement. The aim of AECIA was to bring together the foremost experts as well as excellent young researchers from Africa, Europe, and the rest of the world to disseminate latest results from various fields of engineering, information, and communication technologies. The first edition of AECIA was organized jointly by Addis Ababa Institute of Technology, Addis Ababa University, and VSB - Technical University of Ostrava, Czech Republic and took place in Ethiopia's capital, Addis Ababa.

Proceedings of the Third International Afro-European Conference for Industrial Advancement — AECIA 2016 If there are concepts that have huge academic literature and are of outstanding practical significance in corporate practice, then business performance is certainly one of them. However, the authors of this special issue add interesting and enlightening elements to our knowledge regarding business success and performance in many ways. This special issue underlines that business success, which has both financial and social components, depends to a great extent on the knowledge, skills, and cooperative skills of people in the organization, and their openness to the world of external and internal stakeholders. The behavior of people, who are heavily influenced by the values of the organization and its associated business ethics, has a major impact on business success. This is also true for ethically and socially controversial industries, such as pharmaceutical, alcohol and tobacco. The research results of the authors in this special issue show that different organizational frameworks and solutions can lead to the success of a business. There is, of course, no single, infallible "recipe" leading to success. However, developing project management skills and applying a project management approach within an organization can increase the organization's entrepreneurial ability. The key feature of such a solution is that the organization becomes more open to stakeholders and learns to make decisions quickly, even in situations that demand an organization's ability to innovate, and improve the efficiency of its innovation processes, increases. It is an exciting feature of the special issue that most of the studies deal with a specific area of the global economy, namely Central and Eastern Europe. Empirical research carried out in Poland, the Czech Republic and Hungary, and a comparative analysis of them, is a valuable contribution to the increasingly rich literature dealing with this region, as well as the academic literature in the more general sense. The first paper by Majra Hodžić and Helena Hrůzová, "A study of project management practices in the Czech Republic," addresses the importance of project management for organizations' innovation and performance. Based on the example of the Czech Republic, Hodžić and Hrůzová study current practices used in the field of project management and underline the importance of stakeholders' main demands and requests, and the level of use of project management methods. The results that are presented provide practical implications, especially for new start-ups wanting to boost their competitiveness and innovativeness, by displaying success factors for project management and the necessity for innovation in this area. The success of project management is continued in the second paper by Katarzyna Grzesik and Katarzyna Pioswarz-Sulej entitled "Project managers' competencies and leadership styles from the perspective of organizations functioning in Poland." Grzesik and Pioswarz-Sulej discuss the significance of project managers' different competencies and project leadership styles, which are especially important nowadays considering the increasing dynamics of the organizations' environment. The needed and adopted competencies are compared between the strictly project-oriented organizations (implementing projects for external clients) and organizations that manage projects for internal purposes. The authors identify competencies which are important for organizations' success in the area of project management and may, in turn, lead to better business performance.

The importance of human capital for organizations' performance and competitive advantage is addressed in the third paper by Lukasz Bryl called "Human capital orientation and financial performance. A comparative analysis of US corporations". In the paper, Bryl verifies whether human capital-oriented organizations generate a positive or even above-average financial performance due to higher skills of employees, greater motivation and, thus, higher overall efficiency. The paper has significant practical implications for both managers aiming at increased competitive advantage and investors in terms of the possible directions of stock market investments aimed at achieving above-average returns. Financial success and high performance may also be gained by innovativeness. In the fourth paper, "An innovation capability development process for firms in developing countries: A theoretical conceptual model," Grzegorz Tofaj and Daniel Kiwir analyze the problem of innovation capability development. The much-needed complexity of the analysis is reflected by combining both the technical and the financial aspects of innovation capability development. The proposed model identifies three key innovation capability constructs and is of practical value, especially to organizations from developing countries, as it helps to progress the innovation capabilities more effectively. The fifth paper by Włodzimierz Stoka and Richard Szántó, "CSR and business ethics in controversial sectors: analysis of research results," addresses the issue of organizations' performance from a different perspective, namely the particular obligations toward society or the environment constituted by corporate social responsibility. Based on the example of controversial sectors of the economy (pharmaceutical, tobacco and alcohol) Stoka and Szántó examine the scale and scope of the use of business ethics principles and practices in Poland and Hungary. The analysis provides not only significant fresh insights in this field but also shows that business ethics have an influence on business success and the corporate image of organizations. The sixth paper, "The themes of entrepreneurship discourse: A data analysis approach" by Philip T. Roundy and Arben Asllani, considers the importance of the language used by entrepreneurs. Roundy and Asllani identify five dominant themes in entrepreneurship discourse which address, among other things, technology and professional investments. The analysis of the most recurring themes in entrepreneurship discourse, and their change over time, sets directions for future research and indicates the importance of entrepreneurship discourse for organizations' business success. We would like to thank all the authors for their contribution to this special issue and for sharing their research. We believe that this new research represents a valuable input to our knowledge regarding business success and organizations' performance. We also want to thank the reviewers whose comments contributed to the improvement of the papers and the whole of this special issue. We hope the articles presented here will be of interest to readers, scholars and researchers around the world, and that they will inspire them on to further scientific and practical research in the field of business performance.

Flagship Universities in Africa Having a robust drought monitoring system for Ethiopia is crucial to mitigate the adverse impacts of droughts. Yet, such monitoring system still lacks in Ethiopia, and in the Upper Blue Nile Basin (UBN) basin in particular. Several drought indices exist to monitor drought, however, these indices are unable, individually, to provide concise information on the occurrence of meteorological, agricultural and hydrological droughts. A combined drought index (CDI) using several meteorological, agricultural and hydrological drought indices can indicate the occurrence of all drought types, and can provide information that facilitates the drought management decision-making process. This thesis proposes an impact-based combined drought index (CDI) and a regression prediction model of crop yield anomalies for the UBN. The developed CDI and the regression model have shown to be effective in indicating historic drought events in UBN basin. The impact-based CDI is defined as a drought index that optimally combines the information embedded in other drought indices for monitoring a certain impact of drought, i.e. crop yield anomalies. The development of the CDI and the regression model was shown to be effective in indicating historic drought events to the UBN basin. The impact-based CDI could potentially be used in the future to monitor and predict droughts for the UBN basin.

Developing an Impact-Based Combined Drought Index for Monitoring Crop Yield Anomalies in the Upper Blue Nile Basin, Ethiopia

Business model scenarios and suitability Why is catch-up rare and why have some nations succeeded while others failed? This volume examines how nations learn by reviewing key structural and contingent factors that contribute to dynamic learning and catch-upt.