

Chronicle of Business

Pierre F Tiako

Business Solutions and Environment

Proceedings from the 2025 OkIP Academia & Industry
Convention Conferences



Oklahoma International Publishing



Oklahoma International Publishing

Oklahoma City, Oklahoma, USA

www.okipublishing.com/book

Chronicle of Business

Pierre F Tiako

Business Solutions and Environment

Proceedings from the 2025 OkIP Academia & Industry
Convention Conferences



Oklahoma International Publishing

Business Solutions and Environment

Chronicle of Business

Series Editor

Pierre F. Tiako
Center for IT Research and Development
Tiako University
Oklahoma City, Oklahoma
USA

About this Series

This book series, “Chronicle of Business,” aims to facilitate increased opportunities for cross-fertilization across business disciplines and topics.

Book proposals are solicited for consideration in all business disciplines, including, but not limited to, Accounting, Agribusiness, AI in Business, Business Education, Business Ethics, Business Law, Business Strategy, Digital and Mobile Commerce, Economic and Competitive Intelligence, Economics, Entrepreneurship, Finance, Global Business, Healthcare Administration and Services Management, Human Resources Management, Information Systems, Investment, Management, Marketing, Operations and Supply Chain Management, Organizational Management, Real Estate Management and Development, and Sports Business, Management and Industry.

This book series will publish monographs, professional books, contributed volumes, and textbooks in Business.

For further information, please contact our editorial team at info@okipublishing.com.

More information about this series at <https://www.okipublishing.com>.

Pierre F. Tiako
Editor

Business Solutions and Environment

**Proceedings of Selected Papers from the following 2025 OkIP Academia & Industry
Convention Conferences**

Coming Soon

The selected papers of this book were presented Online and in Oklahoma City, Oklahoma, USA, on April 02 and October 01, 2025.



Editor

Pierre F. Tiako
Center for IT Research and Development
Tiako University
Oklahoma City, Oklahoma, USA

Business Solutions and Environment

References

ISSN 2832-5702 (Print)

ISSN 2832-5710 (eBook)

Chronicle of Business

ISBN 978-1-6692-0010-9 (Print)

ISBN 978-1-6692-0009-3 (Electronic)

<https://doi.org/10.55432/978-1-6692-0009-3>

Copyright Notice

Copyright © 2025 by Oklahoma International Publishing

All rights reserved.

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically, the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The Publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the Publisher nor the authors, nor the editors give a warranty, expressed or implied, concerning the material contained herein or for any errors or omissions that may have been made.

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the Publisher, except in the case of brief quotations embodied in critical reviews and specific other noncommercial uses permitted by copyright law. For permission requests, write to the Publisher at the address below.

Oklahoma International Publishing (OkIP), registered in Oklahoma, USA, published this document. The Publisher remains neutral about jurisdictional claims in published maps and institutional affiliations.



Oklahoma International Publishing (OkIP)
1911 Linwood Blvd
Oklahoma City, OK 73106, USA
<https://www.okipublishing.com>

Preface

This book introduces a collection of selected papers from the 2025 OkIP Academia & Industry Convention conferences held Online and in Oklahoma City, Oklahoma, USA, on April 02 and October 01, 2025. One of the missions of the Academia & Industry Convention series is to promote quality research and development in a diverse and inclusive environment.

Authors and participants from around the world with diverse origins, experiences, and backgrounds participated in these events. The International Technical Program Committees thank those who submitted papers for consideration. Two to three experts in the field peer-reviewed each submitted paper for originality, relevance, contribution, structure, clarity, appropriateness, discussion, and conclusion.

The overall manuscript acceptance rate for full papers was 30%; 45% of the remaining proposals were accepted as short, poster, or abstract papers.

We are grateful to our many colleagues who offered their services to make the event successful and helped prepare this document. We want to thank the Distinguished Keynote Speakers from academia and the industry whose reputation and name recognition were big selling points in pre-event marketing, particularly Prof. Maiga Chang of Athabasca University, Canada.

We would also like to thank the General and Technical Program Committee members who helped organize this event; their names appear on the subsequent pages. We express our gratitude to all the authors of this book and the speakers who shared their research results.

We are also grateful to all the staff of Oklahoma International Publishing for the excellent professional service they provided for this book project and the overall event organization.

This document, which is in progress, consists of several parts, each dealing with a particular facet of Business Solutions and Environment.

Scientific Program Committee

Alwabel, P. S Bin Abdulaziz U, KSA
A. M. Salem, Ain Shams U of Cairo, Egypt
A. Natsheh, Higher Colleges of Tech., Dubai
A. Qusef, Princess Sumaya U for Tech., Jordan
Abena Primo, Huston-Tillotson U, USA
Adel Elmaghraby, University of Louisville, USA
Akhil Kumar, Penn State University, USA
Alfredo Cuzzocrea, University of Calabria, Italy
Amina Omrane, U of Sfax-Tunisia, Tunisia
Amos David, African U of S&T, Nigeria
Andrew Kusiak, University of Iowa, USA
Ankit Vora, Ford Motor Company, USA
Arnab K. Paul, Oak Ridge Nat Laboratory, USA
Asghar Aisha, EPFL of Lausanne, Switzerland
Attila Kertesz, University of Szeged, Hungary
Benjamin Yen, U. of Hong Kong, Hong Kong,
Bikiran Guha, Hitachi Energy, USA
Bora Karayaka, Western Carolina U, USA
Claude Tadonki, MINES ParisTech, France
D. Novosel, Quanta Tech. and Ener Src, USA,
Dan Morehead, OGE Energy Corp (Ret.), USA
Dana Petcu, West U of Timisoara, Romania
David Bueno Vallejo, U of Malaga, Spain
David Schwartzman, Univ of Oklahoma, USA
David Tchoffa, University Paris 8, France
Denise Whitelock, The Open University, UK
Detlef Schulz, Helmut-Schmidt U, Germany
Dina Tbaishat, University of Jordan, Jordan
Dinesh Kumar, Danfoss Drives A/S, Denmark
Enshuai Yu, Boston College, USA
Farhan Siddiqui, Dickinson University, USA
Franklin Lartey, Cox Communications, USA
G. Lkhagvasuren, Natl U Mongolia, Mongolia
Gerard Tchouassi, U. of Yaounde II, Cameroon
Germain Pichop, East Central University, USA
H. Misra, Inst of Rural Mngt Anand, India
Hongzhi Wang, Harbin Inst of Tech, China
Husanbir S. Pannu, Thapar University, India
Hyacinthe Aboudja, Oklahoma City U, USA
I. Konstantinou, Nat Tech U of Athens, Greece
Irene Tiako, U of Yaounde II, Cameroon
J. Cecil, Oklahoma State University, USA
J.R. Kala Kamdjoug, ESSCA School, France
James H. Hill, IUPUI University, USA

Jay Lofstead, Sandia Nat Laboratories, USA
Jose Rueda Torres, Delft U of Tech, Netherlands
Jyotika Athavale, Nvidia Corporation, USA
K. Tissayakorn, Thammasat University, Thailand
Karen Renaud, University of Strathclyde, UK
Katja Gilly, Miguel Hernandez Univ, Spain
Kendra Cooper, British Columbia, Canada
Kengo Hayashi, DENSO Corporation, Japan
Khaled Sellami, University of Bejaia, Algeria
Khalid Alemerien, Tafila Technical U., Jordan
Kishore Mude, Solace Power Inc., Canada
L. McLauchlan, Texas A&M U, Kingsville, USA
Le Gruenwald, University of Oklahoma, USA
Lelio Campanile, University of Campania, Italy
Lynda Sellami, University of Bejaia, Algeria
M. B. Al-Nimer, Hashemite University, Jordan
M. Maravanyika, Namibia U. of S&T, Namibia
M. Tsikerdekis, Western Washington U, USA
Manos Tentzeris, Georgia Inst of Tech, USA
Mauro Andreolini, U of Modena, Italy
Mauro Cuervo, P&T U of Colombia, Colombia
Michele Mastroianni, U of Campania, Italy
Mike Banad, University of Oklahoma, USA
Mohamed Firdhous, U of Moratuwa, Sri Lanka
Mouloud Denai, University of Hertfordshire, UK
Mounir Khiat, ENP Oran, Algeria
Namrata Dhanda, Amity University, India
Nasro Min-Allah, Imam A Bin Faisal U, KSA
Nesreen Alsou, U of Central Oklahoma, USA
Nor A. Abdullah, University Malaya, Malaysia
Nora Sharkasi, Tokyo International U, Japan
Oladayo Bello, New Mexico State U, USA
Om Malik, University of Calgary, Canada
P. Cantiello, Natl Inst of Geo & Volc, Italy
Pankaj Kamthan, Concordia University, Canada
Patrick Sondi, Telecom SudParis, France
Pierre Bourque, University of Quebec, Canada
Pierre Tiako, Tiako U, Oklahoma City, USA
R Mehrubeoglu, Texas A&M U. Corpus C, USA
Rafael Capilla, Rey Juan Carlos U, Spain
Ragab El-Sehiemy, Kafrelsheikh U, Egypt
Rajkumar Buyya, U of Melbourne, Australia
Rashid Mehmood, King Abdulaziz U., KSA
Reza Tourani, Saint Louis University, USA

Richard Boire, Boire Analytics, Canada
Richard Osei, Langston University, USA
Ridwan R. Noel, Texas Lutheran U, USA
Roy McCann, University of Arkansas, USA
S. Abdelwahed, Virginia Common U, USA
S. Hubackova, U of Hradec Kralove, Czech Rep
Saeed Peyghami, Aalborg University, Denmark
Serge Dzonde Naoussi, U of Douala, Cameroon
Sergio Lujan-Mora, U of Alicante, Spain
Sergiu Dascalu, Univ of Nevada, Reno, USA
Sherali Zeadally, University of Kentucky, USA
Shoeb Khan, East Tennessee State U, USA

Shu-Ming Wang, Chinese Culture U, Taiwan
Solomon Berhe, University of the Pacific, USA
Sraboni Dutta, Birla Institute of Tech, India
Subramaniam Ganesan, Oakland Univ, USA
T. Palaoag, U of the Cordilleras, Philippines
Tom Jobe, BioInSpire LLC, USA
Valentina Franzoni, University of Perugia, Italy
Vincent Emeakaroha, U College Cork, Ireland
W. Brownell, CAF Foundation, USA
Yousef Farhaoui, Moulay Ismail U, Morocco
Ziyi Wang, Cornell University, USA