Preface

Throughout history, engineering assets have provided the impetus, and continue to drive the advance of human civilization. Engineering assets make up our built environment, and include man-made physical artefacts like infrastructure, plant, equipment, hardware and software tools and systems, and are deployed across all industry sectors of human endeavour. Engineering assets not only improve almost every aspect of how we live but also, they enhance the joy of living by complementing, supplementing and directly replacing humans in numerous laborious and dangerous tasks. As we depend more and more on engineering assets to provide the means for enhancing our livelihoods, we must advertently manage engineering assets so that they sustain increased quality of life in a world of finite resources.

The 9th World Congress on Engineering Asset Management theme, “Towards Engineering Asset Management Body of Knowledge and Standards”, reinforces the excitement stirred by the release of ISO 5500x standards. On the one hand, the words ‘asset’ and ‘management’ are, respectively, broad and ubiquitous, and engineering assets are basically technologies that exist in the form of man-made tangible things. On the other hand, engineering and technology constitute diadelphous and dicephalous dualism, that is, of the same umbilical cord. Thus, as we grapple with what should constitute the body of knowledge for a subject matter that is cross-, multi-, and transdisciplinary, we prefer to name the field of endeavour, or the subject area as “Engineering Asset Management (EAM)”:  

i. to minimize ambiguity that may be inherent in the term ‘physical assets’—in the sense that land and mineral resources are also ‘physical’;  
ii. to provide a conventional academic home for studying, teaching and research in Engineering Asset Management.
With delegates from more than 18 countries, the 9th WCEAM programme featured:

- Research poster presentations
- 1 plenary presentation
- 4 keynote addresses
- 3 panel discussion sessions
- 4 seminar sessions
- 6 tutorial master classes
- 6 practitioner workshops
- 72 paper presentations
- 11 exhibitions
- ‘Madiba Magic’ tour
- Wildlife Game drive
- Memorable entertainment

December 2014

Joe Amadi-Echendu  
Changela Hooihlo  
Joe Mathew
9th WCEAM Research Papers
Volume 1 Proceedings of 2014 World Congress on
Engineering Asset Management
Amadi-Echendu, J.; Hoohlo, C.; Mathew, J. (Eds.)
2015, XXII, 457 p. 131 illus., 90 illus. in color., Softcover
ISBN: 978-3-319-15535-7