



Seminar Presentation

Friday, December 13/2024 (2 PM)

**BAHIR DAR INSTITUTE OF TECHNOLOGY
FACULTY OF MECHANICAL AND INDUSTRIAL
ENGINEERING**

SHORT BIOGRAPHY

Bereket Haile Woldegiorgis received his Ph.D. from the National Taiwan University of Science and Technology, Taiwan, in 2016 and his M.Sc. in Industrial Engineering from Addis Ababa University, Ethiopia, in 2008. In addition, he has completed a two years postdoctoral and three years independent postdoctoral research projects at National Taiwan University of Science and Technology. His research interests include ergonomics, biomechanics, human-machine interactions, performance of virtual and augmented environments, maintenance and reliability, systems sustainability, and optimization. Currently, he is an associate professor of industrial engineering and faculty dean at the Faculty of Mechanical and Industrial Engineering, Bahir Dar Institute of Technology, Bahir Dar University.

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Seminar topic:

Roles of Extended Reality (XR) in the Industry 5.0

A b s t r a c t

Extended reality (XR) creates an artificial environment by simulating the reality. The future interaction, in the era of industry 5.0, shows the potential of XR to help humans interact with their environment. With focus of human, industry 5.0 is shaping the future of both service and manufacturing industries. Even though the XR has great potential in creating high fidelity in the interaction, there are many challenges that the future researchers and developers need to address. In this seminar, the promise, challenges, and future research directions are included. Moreover, it attempts to create a discussion platform to share experiences.

Keywords: Extended reality, Industry 5.0, human machine interaction, VR/AR/MR