

Melaku Bogale

EDUCATION

The University of Texas at El Paso, El Paso (UTEP), TX, USA, 2009 – Present

- PhD, Computational Science, PhD candidate.

New Mexico State University (NMSU), Las Cruces, NM, USA, May 2008

- MS, Physics

Addis Ababa University (AAU), Addis Ababa, Ethiopia,

- BS, Physics

RESEARCH INTEREST

- Generally, I am interested in the numerical implementation of different algorithms to model and simulate engineering, biological, financial, and economical, etc., problems.
- Signal and image processing, pattern recognition, clustering, optimization, artificial intelligence.

PUBLICATIONS

Peer-reviewed Journal publications:

Melaku A. Bogale, Huying Yu, Thompson Sarkodie-Gyan, Amr Abdelgawad, “Characterization and quantification of gait deficits within the gait phases using fuzzy-granular computing” Journal of Biomedical Sciences & Engineering, 2012, 5, 720-728.

Melaku. A. Bogale, Huying Yu, Thompson Sarkodie-Gyan, Murad Alaqtash, James Moody Richard Brower, “Case study on assessment of mild traumatic brain injury using granular computing”, Engineering Supplement, 2012, 4 10B, 11 -14.

T. Sarkodie-Gyan, Huiying Yu, Murad Alaqtash, **Melaku A. Bogale**, Amr. Abdelgawad, James Moody, “Application of fuzzy Sets for assisting the physician’s model of functional Impairments in Human Locomotion”, Journal of Intelligent and Fuzzy Systems (accepted for publication, in press).

T. Sarkodie-Gyan, Huiying Yu, **Melaku Bogale**, Nii Tetteh Addy, Miguel Pirela-Cruz, “Application of Multiple Sensor Data Fusion for the Analysis of Human Dynamic Behavior in Space: Assessment and Evaluation of Mobility-Related Functional Impairments”, Journal of NeuroEngineering and Rehabilitation (Submitted for peer review).

Conferences presentations:

Melaku A. Bogale, “Gait variability study using dual task paradigm among healthy and mild traumatic brain injury subjects”, World Federation for Neurorehabilitation (WFNR), Melbourne, Australia, May 2012. (Poster presentation).

Melaku A. Bogale, “Case study on assessment of mild traumatic brain injury using granular computing”, 12th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Science, University of Texas at El Paso, El Paso, Texas, Oct 27, 2012,” (oral presentation).

TECHNICAL SKILLS

Operating System: UNIX, LINUX, and Windows.

Package: MS Word, MS Power Point, MS Excel.

Programming Languages: C, C++, and MATLAB, parallel programming with MPI