

GEODESY AND NAVIGATION RESEARCH GROUP

NAME OF RESEARCH GROUP

Geodesy and Navigation Research Group (GNRG)

DEPARTMENT

The research group is domiciled at the Department of Geoinformatics and Surveying of the Faculty of Environmental Studies, UNEC

RESEARCH FOCUS

Development of high precision, reliable and cost effective geodetic products to support surveying and mapping, navigation, timing and frequency dissemination, and geoscientific research.

RESEARCH THEMES

Research themes cover areas in Geodesy and Navigation including:

- (i) Geodetic Datum Transformation Models and applications
- (ii) Local Geoid determination
- (iii) Development of methods, measurement systems and analysis strategies for monitoring buildings and natural structures
- (iv) Development of algorithms for GPS positioning and navigation applications
- (v) Testing precise cost-effective positioning and navigation in challenging environments.
- (vi) Using GPS as a sensor of the atmosphere
- (vii) Real Time Kinematic (RTK) precise positioning
- (viii) GPS (Global Positioning System) and INS (Inertial Navigation System) integration
- (ix) Precise orbit and clock modeling
- (x) Very Long Baseline Interferometry (VLBI)

COMPOSITION OF RESEARCH GROUP

- (i) Prof FI Okeke (Coordinator) (francis.okeke@unn.edu.ng, 08035627286)
Department of Geoinformatics and Surveying, UNEC
- (ii) Dr. E.C. Moka (Member)
- (iii) Dr VN Uzodinma (Member)
- (iv) Mr Elijah Ebinne (Member)
- (v) Mr Lawrence Hart (Member)
- (vi) Mr Kelechi Nwosu (Member)
- (vii) Mr Victor Nnam (Member)

BRIEF CVS OF MEMBERS

(i) Prof FI Okeke

- (a) Professor of Geoinformatics and Surveying, in the Department of Geoinformatics and Surveying, UNEC since 2008
- (b) Dean of the Faculty of Environmental Studies since August 2014, and Head of Department (from 2010 to 2014)
- (c) President Nigerian Association of Geodesy (NAD) since 2011

EDUCATION

- (a) Doktor Ingenieur (**Ph.D**) in Geodesy and Geoinformatics, University of Stuttgart, Germany, July 1997.

- (b) Master of Science (**M.Sc.**) in Geodesy and Astronomy, University of Nigeria, Dec. 1988

HONORS AND AWARDS

- (a) German Academic Exchange Service (DAAD) Scholarship Award for Doctoral Research Program in Germany (1992 – 1997).
- (b) Post Doctoral Fellowship Award of the David Blaustein Institute of Desert Research, at the Remote Sensing Laboratory of the Ben Gurion University of the Negev, Israel (2002 – 2004).
- (c) University of Nigeria Vice Chancellor's Academic Excellence Award, October 2008

MEMBERSHIP OF PROFESSIONAL BODIES:

- (a) Member, Nigerian Institution of Surveyors
- (b) Member, Nigerian Union of Planetary and Radio Sciences (NUPRS)
- (c) Member, Nigeria Association of Geodesy (NAG)
- (d) Member Association of America of Geographers (MAAG), 2010

(ii) Dr EC Moka

- (a) Senior Lecturer in the Department of Geoinformatics and Surveying, UNEC since 2006
- (b) Head of Department, Department of Geoinformatics and Surveying, UNEC since 2014 and formerly from 2006 to 2008
- (c) Secretary Nigerian Association of Geodesy (NAD) since 2011

EDUCATION

- (a) Ph.D. Geodesy & Geodymanics, University of Nigeria, 2011
- (b) M.Sc. Geodesy / Astronomy, University of Nigeria 1987

MEMBERSHIP OF PROFESSIONAL BODIES:

- (e) Member, Nigerian Institution of Surveyors
- (f) Member, Nigerian Environmental Society (NES)
- (g) Member, Nigerian Union of Planetary and Radio Sciences (NUPRS)
- (h) Member, Nigeria Association of Geodesy (NAG)

(iii) Dr VN Uzodinma

- (a) Senior Lecturer in the Department of Geoinformatics and Surveying, UNEC since 2006
- (b) Head of Department, Department of Geoinformatics and Surveying, UNEC from 2008 to 2010
- (c) Regional Coordinator, Southeast Nigerian Association of Geodesy (NAD) since 2011

EDUCATION

- (c) Ph.D. Geodesy & Geodymanics, University of Nigeria, 2008
- (d) M.Sc. Geodesy / Astronomy, University of Nigeria 1987

MEMBERSHIP OF PROFESSIONAL BODIES:

- (i) Member, Nigerian Institution of Surveyors
- (j) Member, Nigerian Union of Planetary and Radio Sciences (NUPRS)
- (k) Member, Nigeria Association of Geodesy (NAG)