

## Norman D. H. Munroe

### Name and academic rank:

Norman D. H. Munroe, Associate Professor, Associate Dean, College of Engineering and Computing

### Degrees with fields, institutions and date:

Eng.Sc.D. Chemical Metallurgy, Columbia University, NY, NY, (1982 – 1987)

M.S. Metallurgical Engineering, University of British Columbia, (1979 – 1981)

M.Phil. Mineral Engineering, University of Leeds - UK (1975 – 1977).

B.S. Physics/Chemistry, University of Dar-es-Salaam – Tanzania (1970 – 1973)

### Number of years of service for this faculty, date of original appointments, and dates of advancement in rank:

22 Years

Associate Dean, College of Engineering & Computing, FIU, Aug. 2010 – Present

Director, Office of Student Access and Success, Aug. 2013 -Present

Director, Applied Research Center, FIU, Aug. 2008 – Jul. 2010

Associate Director, Applied Research Center, FIU, Oct. 2005 -2008

Associate Dean, College of Engineering & Computing, FIU, 2003-2006

Chairperson, Mechanical Engineering Department, FIU, Sept. 2002 – 2003

Interim Chairperson, Mechanical Engineering Department, FIU, 2001-2002

Associate Professor, Florida International University, 1996-present

Assistant Professor, Florida International University, 1991-1996

### Other related experience:

\* As PI of the Western Hemisphere Information Exchange (WHIX)-08 program, managed the development and deployment of a Mobil Medical Clinic powered by wind/solar energy system in the Dominican Republic.

\* As PI of the WHIX-07 program, partnered with US Southern Command, Panama Institute of Technology and US Military Group in Technology/Demonstration of biodiesel production and testing in various engines.

\* Provided workshops of Climate Change and Greenhouse Gas Accounting in Barbados and on behalf of the Commonwealth Secretariat, UK.

\* Provided workshops of Climate Change, Greenhouse Gas Accounting and Clean Development Mechanism in Belize on behalf of the Commonwealth Secretariat, UK, June, 2010.

\* Faculty Intern Foster Wheeler; Wastewater Pilot Plant testing at New Bedford Harbor, MA. Geo-probe soil sampling & ESA at Watertown. June-December 2000.

\* HCET, FIU, Project: Microwave Sintering & Combustion without Iso-static pressure. 1995-1998

\* EMCOM Faculty Fellow, ORNL. Biosorption of uranium. Summer 1992 & 1993

\* Assistant Chief of Inspectors, EH&S Department, NYC Board of Education. Supervised 20 engineers and asbestos abatement specifications. 1987-1991

\* Lecturer, University of Guyana, Developed Mineral Processing Curriculum. 1977-1979

\* Teaching Assistant, University of Leeds, Mineral Engineering.1975-1977

\* Assistant Lecturer in Chemistry.1973-1975

\* Research Assistant, Columbia University, NY, NY. 1982-1987

### Consulting, patents, etc.:

Parkson Waste water treatment plant, City of Coral Gables Police Department, United Nations Consultant, Guyana; Bio Nucleonics, Gas Technologies Institute, City Gas Inc; Invention Disclosure; “A method of alloying and surface treatment of Nitinol to minimize platelet adhesion on blood contacting devices”.

States in which registered: N/A

### Principal publications (Last five years):

1. D. Lahiri, P. K. Gill, S. Scudino, C. Zhang, V. Singh, J. Karthikeyan, N. Munroe, S. Seal and A. Agarwal, “Cold Sprayed Aluminum Based Glassy Coating: Synthesis, Wear and Corrosion Properties”, Surface Coating and Technology, 2013, <http://dx.doi.org/10.1016/j.surfcoat.2013.04.049>.

2. P. Gill, N. Munroe and A McGoron, "Characterization and Degradation Behavior of Anodized Magnesium-Hydroxyapatite Metal Matrix Composites", *Journal of Biomimetics, Biomaterials, and Tissue Engineering*, 2012, 16, 55-69. 10.4028 / www.scientific.net/JBBTE.16.55.
3. P. Gill, N. Munroe, A. Datye, "Synthesis, Characterization and Mechanical Properties of Magnesium Based Biodegradable Alloys". *Emerging Materials Research*, 2013. 10.1680/emr.12.00020.
4. D. Persaud-Sharma, N. Munroe and A. McGoron, "Electro and Magneto-Electropolished Surface Micro-Patterning on Binary and Ternary Nitinol", *Trends Biomater Artif Organs*. 26 (2) 74-85, 2012.
5. P. Gill, N. Munroe and A. Datye, "Assessing the Effect of Surface Roughness on Corrosion Behavior of Magnesium Alloys",
6. Higier, A. Arbide, A. Awaad, J. Eiroa, J. Miller, N. Munroe, A. Ravinet and B. Redding, "Design, Development and Deployment of a Renewable Energy Powered Mobile Medical Clinic with Automated Modular Control System", *Renewable Energy*, 2012 (Submitted).
7. P. Gill, N. Munroe, C. Pulletikurthi, S. Pandya, W. Haider, "Effect of Manufacturing Process on the Biocompatibility and Mechanical Properties of Ti-30Ta Alloy", *Journal of Materials Engineering and Performance*. Volume 20, Numbers 4-5, 819-823 DOI: 10.1007/s11665-011-9874-7.
8. P. Gill, N. Munroe, R. Dua, S. Ramaswamy, "Corrosion and Biocompatibility Assessment of Magnesium Alloys". *Journal of Biomaterials and Nanobiotechnology*. *Journal of Biomaterials and Nanobiotechnology*, 2012, 3 (1), p. 10-13. DOI: 10.4236/jbnb.2012.31002.
9. P. Gill, N. Munroe, "Review on Magnesium Alloys as Biodegradable Implant Materials". *Journal of Material Science: Materials in Medicine Int. J. Biomedical Eng. & Tech.*, Vol. 10, No. 4, 383-398, 2012.
10. P. Gill, N. Munroe, C. Pulletikurthi, "Investigating Carbon Nanotubes in Copper-Chromium Metal Matrix Composite", *Journal of Materials Engineering and Performance*, 2012. DOI: 10.1007/s11665-012-0198-z.
11. N. Munroe, "Climate Change and Regions at Risk: A look at Central America", *Western Hemisphere Security Analysis Center, Applied Research Center, Florida International University*, May, 2011.
12. N. Munroe, "Clean Development Mechanism - Access and Path Forward for Caribbean Countries", *Governance and Institutional Development Division, Commonwealth Secretariat, UK*, 2010.

**Memberships in scientific and professional societies:**

American Society of Mechanical Engineers  
Sigma Xi, The Scientific Research Society; Kappa Chapter

**Honors and awards:**

Advisor, FIU NSBE winning the Best Student Chapter Award in 2004, as Advisor  
Ronald E. McNair, Post Baccalaureate Achievement Program Award, 2007  
Faculty Fellowship Awards from INEEL, 1998 & 1999  
Florida State Teaching Incentive Program Award, 1996  
Florida International University Excellence in Teaching Award, 1994  
Campbell Fellowship at Columbia University, 1982 - 87.

**Institutional and professional services (Last five year):**

National Action Council for Minorities in Engineering (NACME) Advisory Committee member 2013.  
Program Committee Chair of Abstract Submission of the Inaugural Florida McNair Scholars Research Conference, Miami, FL, November 14-16, 2013.  
Invited Speaker at the National Society of Black Engineers Public Policy Special Interest Group Meeting at the AAAS in Washington DC, February 22, 2013.  
Program Committee Member of 29th Southern Biomedical Engineering Conference, Miami, FL, May 3-5, 2013.  
FIU Committee Member and CEC lead in coordinating the celebration of Diversity Week, April 4-8, 2011  
FIU Committee Member for strategies for increased retention of African American students.  
NSF-MSI Faculty Development Forum: Provided recommendations and strategies for improving the quality and quantity of proposals submitted to NSF and evaluation of prior workshops, May 23, 2011.

**Professional development activities (Last five years):**

Greenhouse Gas Accounting, University of Florida Treeo, January 19, 2010.