

BIODATA

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Designation: Assistant Professor
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Education:

- B. Tech 1998 (*Civil Engineering*) – T.K.M College of Engineering, University of Kerala
- M. Tech 2002 (*Ocean Engineering*) – Indian Institute of Technology (IIT), Madras
- Ph.D. 2011 (*Ocean & Naval Architecture Engineering*) – Memorial University of Newfoundland, NL, Canada

Areas of Interest:

- Unmanned Underwater Vehicles (UUV) – dynamics & hydrodynamics, manoeuvring, control and guidance
- Experimental model testing & simulation
- Dynamics of offshore structures

Professional Experience:

- August 2015 – Present: Assistant Professor, Department of Ship Technology, Cochin University of Science and Technology (CUSAT)
- April 2014 – August 2015: Faculty (on Contract), Indian Maritime University (IMU), Visakhapatnam
- October 2013 – March 2014: Guest Faculty, Department of Civil Engineering, T.K.M College of Engineering, Kollam, Kerala
- November 2012 – April 2013: Postdoctoral Fellow, Memorial University of Newfoundland, NL, Canada
- September 2003 – December 2010: Teaching Assistant, Memorial University of Newfoundland, NL, Canada
- June 2002 – July 2003: Project Officer, Department of Ocean Engineering, IIT Madras
- September 1999 – June 2000: Project Associate, Department of Ocean Engineering, IIT Madras

Awards / Honours:

DAAD Fellowship (**D**eutscher **A**kademischer **A**ustausch **D**ienst), Technische Universität Dresden (TÜD), Germany. [May 2001 – February 2002]

Ph.D. Thesis: “Analysis of Full-Scale Sea-Trials Manoeuvring Data and Development and Validation of a Motion Simulation Model for the AUV “MUN Explorer”

LIST OF PUBLICATIONS:

International Conferences

Issac, M., Bose, N., Williams, C.D., Bachmayer, R., Crees, T., “Depth-Changing Manoeuvres Using the *MUN Explorer* AUV”, 29th American Towing Tank Conference (ATTC) 2010, Annapolis, Maryland, 11-13th August, 2010.

Issac, M., Adams, S., Bose, N., Williams, C.D., Bachmayer, R., Crees, T., “Analysis of Horizontal Zigzag Manoeuvring Trials from *MUN Explorer* AUV”, OCEANS '08, Quebec City, QB, September 15 – 18, 2008.

Issac, M., Adams, S., He, M., Bose, N., Williams, C.D., Bachmayer, R., Crees, T., “Manoeuvring Trials with *MUN Explorer* AUV: Data Analysis and Observations”, OCEANS '07, Vancouver, BC, September 29 – October 4, 2007.

Issac, M., Adams, S., He, M., Bose, N., Williams, C.D., Bachmayer, R., Crees, T., “Manoeuvring Experiments Using the *MUN Explorer* AUV”, International Symposium on Underwater Technology 2007, Tokyo, Japan, April 17 – 20, 2007.

Azarsina, F., Williams, C.D., Issac, M.T. (2008), "Modelling the Hydrodynamic Sway Force Exerted on the Bare-Hull of an Axi-symmetric Underwater Vehicle in Lateral Acceleration Manoeuvres", Proceedings of the OCEANS'08 MTS/IEEE, September 15 to 18, 2008, Quebec City, Québec, Canada.

Azarsina, F., Williams, C.D., Issac, M., “Pure Yaw Experiments on a Series of Hull Forms for an Underwater Vehicle: Hydrodynamic Observations and Analysis”, International Symposium on Underwater Technology 2007, Tokyo, Japan, April 17 – 20, 2007.

Williams, C.D, Doucet, M. J., Curtis, T., Issac, M., Azarsina, F., “Effects of Hull Length on the Hydrodynamic Loads on a Slender Underwater Vehicle During Manoeuvres”, OCEANS '06, Boston, Massachusetts, September 18 – 21, 2006.

National Conferences

Issac, M., Sundaravadivelu, R., Moeller, B., “FE-BE Analysis of Pavements in Harbour”, National Seminar on Harbour Structures- *NASHAR 2003*, IIT Madras, India, February 2003.

International Workshops

Issac, M., Bose, N., Williams, C. D., and Bachmayer, R., “Manoeuvring Experiments Using the *MUN Explorer* AUV: An Overview of the Vehicle’s Response during Sea Trials”, 6th Biannual NRC-IOT Workshop on Underwater Vehicle Technology, St. John’s, Newfoundland, 21 & 22 October 2010.