

**UNIVERSITY OF PRETORIA
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY**

Mohsen Sharifpur (CV)

1. BIOGRAPHICAL SKETCH

1.1 GENERAL INFORMATION

Surname	Sharifpur				First names	Mohsen		
Citizenship	Iran				Title	Dr.		
Place of birth	Iran							
Population group	African	<input type="checkbox"/>	Coloured	<input type="checkbox"/>	Indian	<input type="checkbox"/>	White	<input checked="" type="checkbox"/>
Marital status	Married				Fax No.	012 420 6632		
Direct Telephone	012 4202448				E-mail	mohsen.sharifpur@up.ac.za		
Residential address	Pretoria				Postal address	Dep. of Mech. and Aeronautical Eng. University of Pretoria Lynnwood Road Private Bag X20, Hatfield, 0028 Pretoria South Africa		

1.2 LANGUAGE PROFICIENCY; Persian (native), English

1.3 HIGHEST SCHOOL QUALIFICATION; PhD

INSTITUTION	SUBJECTS	DISTINCTIONS
EMU University	Mechanical Engineering (Thermal-Fluid)	Yes (The only postgraduate student with CGPA 4 out of 4 since 2003)

1.4 ACADEMIC QUALIFICATIONS OBTAINED

Degree/ Diploma	Field of study	Higher education institution	Period	Year of graduation	Distinctions
PhD	Mechanical Engineering (Thermal-Fluid)	EMU	4.5	2009	Yes (The only 4 out of 4)
ME	Nuclear Engineering	Research and Science University	3	2001	Yes
BE	Mechanical Engineering	Shiraz University	5	1992	No

1.5 WORK EXPERIENCE TO DATE

Name of employer	Capacity and/or type of work	Period
University of Pretoria	Senior Lecturer	Dec. 2009- Present
EMU University	Research and Teaching assistant	2004-2009
Tire & Machine Industrial Co.	Researcher and Engineer	2001 - 2004
Academic Institute for research and education	Manager and Researcher	1998-2004
Airplane Maintenance	Researcher and Engineer	1994-1996
Jahesh Industry Co.	Engineer	1992-1994

2. TEACHING AND LECTURING DUTIES

2.1 UNDERGRADUATE

2.1.1 Courses/modules presented:

Course	Level (second year, etc.)	Academic Institution	Degree/ Diploma	Compilation of study guides (Yes or No)	Curriculum design (Yes or No)
Computational Fluid Dynamics (MKM 411)	4 th	UP	BS	Yes	Yes
Computational Mechanics (MKM 420)	4 th	UP	BS	Yes	Yes
Continuum Mechanics (MKM 320)	3 rd	UP	BS	Yes	Yes
Porous Flow (MAN 420)	4 th	UP	BS	Yes	Yes
Introduction to Mechanical Eng.	1 st	EMU	BS	Yes	Yes
Solar Energy Eng. (assist)	4 th	EMU	BS	No	No

Fluid Mechanics (assist)	3 rd	EMU	BS	No	No
Heat Exchanger Design (assist)	4 th	EMU	BS	No	No
Thermodynamics II (assist)	3 rd	EMU	BS	No	No
Heat Transfer(assist)	3 th	EMU	BS	No	No
Capstone Team Project (assist)	4 th	EMU	BS	No	No

2.1.2 Study leader for design projects and research projects

The study leader for more than 50 final year design projects and research projects of undergraduate students in the department of mechanical and aeronautical engineering at UP since Dec. 2009.

2.1.3 External Examiner

Course	University	Year
Numerical Methods in Heat & Fluid Flow (MEC4045F)	University of Cape Town (UCT)	2013 and 2014

2.2 Courses/modules presented: POSTGRADUATE

Course	Level	Academic Institution	Degree/ Diploma	Compilation of study guides (Yes or No)	Curriculum design (Yes or No)
THERMOFLOW (MTV 732)	MS	UP	MS	Yes	Yes
POROUS FLOW (MAN 780)	MS	UP	MS	Yes	Yes
ADVANCED FLUID MECHANICS (MSX 781)	MS	UP	MS	Yes	Yes

2.3 Educational courses attended

Education Induction workshop (2010)
Occupational Health and Safety workshop (2012)

3. RESEARCH

RESEARCH FIELD: Convective multiphase Flow Nanofluids Waste Heat to Work (and the effect on the Global Warming) Solar Energy Engineering CFD Convective Porous Media Nuclear Engineering	SPECIALITY Convective Nanofluids Boiling Heat Transfer Computational Heat Transfer Thermal-Fluid Analyses of Nuclear Reactors Cavity Flow
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3.1 RESEARCH DUTIES

3.1.1 Former supervision or co-supervision (completed)			
Name of student	Degree/Title of dissertation/ thesis and date	Supervisor/ Co-supervisor(s)	Duration of studies (years)
Roozbeh Vaziri	MS/Experimental Study on Pressure Drops in Particle-Liquid Two-Phase Flow and Porous Media	Consultant Supervisor	2007-2008
Dr. Nwosu Paul Nwachukwu	Post-doc / Investigation into the models for effective viscosity of nanofluids.	Dr M. Sharifpur/ Prof JP Meyer	2010-2011

3.1.2 Current postgraduate students					
Name of student	Degree	Project title	Supervisor	Co-supervisor(s)	Year of registration
Tshimanga Ntumba	MS	Experimental Investigation and Model Development for Thermal Conductivity of Glycerol-MgO Nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2011
Mahdi Mehrabi	PhD	Modeling and optimization of thermophysical properties and convective heat transfer of nanofluids by using artificial intelligence method.	Dr. M. Sharifpur	Prof. JP Meyer	2011
Ernest Inegbedion	PhD	Mathematical Modeling and CFD simulation into Convective Two-Phase Flow	Dr. M. Sharifpur	Prof. JP Meyer	2011
Elmi Grove	MS	A feasibility study on modification of one of the steam power plants of South Africa by using boiling condenser	Dr. M. Sharifpur	Prof. JP Meyer	2012

Renier Viljoen	MS	CFD simulation and experimental investigation into cavity flow natural convection of nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2012
Gaettan Katamba	MS	Investigation into waste heat to work in thermal systems in South Africa industries in order to gain more efficiency and less environment defect	Dr. M. Sharifpur	Prof. JP Meyer	2012
Charl Joubert	MS	A feasibility study on modification of one of the steam power plants of South Africa by using boiling condenser	Dr. M. Sharifpur	Prof. JP Meyer	2012
Kyoung Lee	MS	CFD simulation and experimental investigation into cavity flow natural convection of nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2012
Conrad Sanama	MS	Mathematical modeling and experimental investigation into the effect of air-water two-phase flow on corrosion of metal base surfaces	Dr. M. Sharifpur	Prof. JP Meyer	2012
Saheed Adio	PhD	Mathematical modeling and experimental investigation into effective viscosity of nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2013
Saboura Yousefi	MS	Mathematical modeling and experimental investigation into Nanolayer of Nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2013
Joseph Noge	MS	Investigation into waste heat to work in thermal systems in South Africa industries in order to gain more efficiency and less environment defect	Dr. M. Sharifpur	Prof. JP Meyer	2013
Hadi Ghodsinezhad	MS	CFD simulation and experimental investigation into cavity flow natural convection of nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2013
Mostafa Mahdavi	PhD	Mathematical Modeling, CFD simulation and Experimental investigation into Nano scale Convective Two-Phase Flow	Dr. M. Sharifpur	Prof. JP Meyer	2013

I Garbadeen	MS	The experimental verification of the heat transfer characteristics of a water/graphite nano-fluid composite at Light Water Reactor (LWR) conditions	Prof JFM Slabber	Dr. M. Sharifpur Prof. JP Meyer	2013
Cornelius Siakachoma	PhD	Efficiency Improvement of Solar Heaters	Dr. M. Sharifpur	Prof. JP Meyer	2014
Tanja Ottermann	MS	CFD simulation and experimental investigation into cavity flow natural convection of nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2015
Johannes Joubert	MS	Investigation into magnetic nanofluids	Dr. M. Sharifpur	Prof. JP Meyer	2015

Origin of research funds (e.g. contract research, THRIP, international funding organisations, other(s))	Title of research project or programme	Duration
RESEARCH DEVELOPMENT PROGRAMME (RDP)	Investigation into Thermal–Fluid Behavior of Nanofluids	2010-2012
Fluxion-CSIR	Final year projects of my undergraduate students concerning CFD simulation	2014
IRT seed-funding	Investigation into Thermal–Fluid Behavior of Nanofluids	2014

3.2 RESEARCH OUTPUT

Publications in refereed accredited journals:

- 1 L. B. Y. Aldabbagh, Mohsen Sharifpur, Mahdi Zamani, 2008, Experimental Study of Free convection about a Vertical flat plat in Porous Media, Defect and Diffusion Forum- Diffusion in Solids and Liquids, 274: 796-801.
- 2 Hikmet S. Aybar, Mohsen Sharifpur, 2008, Simplification of Ensemble Averaged Two - Phase Flow with Heat and Mass Transfer for Boiling Inside channels, Defect and Diffusion Forum- Diffusion in Solids and Liquids, 274: 616-621

- 3 Mohsen Sharifpur, Sholeh Rostamirad, 2009, Experimental Investigation of Conditions of Water Diffusion before Cooking within Production Line of Red Beans. *Defect and Diffusion Forum- Diffusion in Solids and Liquids*, 285: 220-224.
- 4 Hikmet S. Aybar , Mohsen Sharifpur, Roozbeh Vaziri, 2009, Experimental Investigation of Pressure Drop in one Phase Flow, Particle-Liquid Two-Phase Flow, and Porous Media Consisting of the Same Particle Size, *Defect and Diffusion Forum - Diffusion in Solids and Liquids*, 285: 599-603.
- 5 Hikmet S. Aybar and Mohsen Sharifpur, 2009, Modelling of Two-Phase Flow in Boiling Water Reactors Using Phase-Weighted Ensemble Average Method, *Iranian Journal of Science & Technology, Transaction B-Engineering (International English Edition)*, 33-B5: 355-370.
- 6 Hikmet S. Aybar and Mohsen Sharifpur, 2009, Simulation of boiling in a vertical channel using ensemble average model, *Iranian Journal of Chemical & Chemical, Engineering-International English Edition*, 28-3: 77-86.
- 7 Mehrabi M, Sharifpur M, Meyer JP, 2012, Application of the FCM-based Neuro-fuzzy Inference System and genetic algorithm-polynomial neural network approaches for modeling of the thermal conductivity of Alumina-water nanofluids, *International Communications in Heat and Mass Transfer*, 39, 971–977.
- 8 Mehrabi M, Sharifpur M, Meyer JP, 2013, Viscosity of Nanofluids based on an Artificial Intelligence Model, *International Communications in Heat and Mass Transfer*, 43, April 2013, 16–21.
- 9 Mehrabi M, Sharifpur M, Meyer JP, 2013, Modelling and multi-objective optimisation of the convective heat transfer characteristics and pressure drop of low concentration TiO₂-water nanofluids under turbulent regime, *International Journal of Heat and Mass Transfer*. 67, 646–653.
- 10 Paul N. Nwosua, Josua Meyer, Mohsen Sharifpur, 2014, Nanofluid Viscosity: A Simple Model Selection Algorithm and Parametric Evaluation, *Computers & Fluids*, Volume 101, (2014), pp. 241-249.
- 11 Paul N. Nwosua, Josua Meyer, Mohsen Sharifpur, 2014, A Review and Parametric Investigation into Nanofluid Viscosity Models, *Journal of Nanotechnology in Engineering and Medicine*, accepted on 8 November 2014, doi:10.1115/1.4029079.

Papers accepted for publication in refereed accredited journals:

- 12 HIKMET Ş. AYBAR, MOHSEN SHARIFPUR, M. REZA AZIZIAN, MEHDI MEHRABI, and JOSUA P. MEYER, A Review of Thermal Conductivity Models of Nanofluids, *Heat Transfer Engineering*, , accepted on 25 April 2014, scheduled for Vol. 36, No. 16, 2015, online, DOI:10.1080/01457632.2015.987586
- 13 Josua P Meyer, Saheed A Adio, M Sharifpur and Paul N Nwosu, The viscosity of nanofluids: a review of the theoretical, empirical and numerical models, *Heat Transfer Engineering*, manuscript number: HTE1714, accepted on 29 May 2014.
- 14 SA Adio, M Sharifpur and JP Meyer, Investigation into Effective Viscosity, Electrical Conductivity and PH of γ -Al₂O₃ – Glycerol Nanofluids in Einstein Concentration Regime, "Heat Transfer Engineering, accepted on 25 August 2014, Vol. 36, No. 14-14, 2015.

Submitted papers to refereed accredited journals:

- 15 Sharifpur M, Yekoladio PJ, Meyer JP, Exhaust Gas Energy Recovery Potential for Ankerlig and Gourikwa Gas Turbine Power Stations in South Africa, *Energy*, manuscript number:EGY-D-13-01919.

- 16 SA Adio, M Sharifpur and JP Meyer, A Model for Optimum Ultrasonication Energy Density for Preparing Alumina–Glycerol Nanofluids: Typified by Viscosity, Journal of Heat Transfer (ASME), manuscript number: HT-14-1713.
- 17 Ntumba Tshimanga, Mohsen Sharifpur, Josua P. Meyer, Experimental Investigation and Model Development for Thermal Conductivity of Glycerol-MgO Nanofluids, Heat Transfer Engineering, manuscript number: 7414.
- 18 Mostafa Mahdavi, M. Sharifpur and J.P. Meyer, Simulation study of convective and hydrodynamic turbulent nanofluids by turbulence models, International Journal of Thermal Sciences, manuscript number: THESCI-D-14-01082.

Papers in progress for publication in refereed accredited journals:

- 19 SA Adio, M Sharifpur and JP Meyer, Factors affecting the pH and electrical conductivity of MgO-ethylene glycol nanofluid, it is prepared for microfluidics and nanofluidics.
- 20 SA Adio, M Sharifpur and JP Meyer, Optimal energy density required for MgO-ethylene glycol nanofluids preparation for heat transfer application, it is prepared for international journal of heat and mass transfer.
- 21 Mostafa Mahdavi, M. Sharifpur and J.P. Meyer, CFD modelling of heat transfer and pressure drops of nanoparticles through vertical tubes in laminar flow by DPM and Mixture model, it is prepared for International Journal of Multiphase Flow.
- 22 Ntumba Tshimanga, Mohsen Sharifpur, Josua P. Meyer, Experimental Investigation and Model Development for Thermal Conductivity of Al₂O₃-Glycerol Nanofluids, it is prepared for international journal of heat and mass transfer.
- 23 Hadi Ghodsinezhad, Sharifpur M and Meyer JP Experimental investigation into Cavity flow Natural Convection for ZnO- Glycerole 40%-Water 60% Nanofluids, Heat Transfer Engineering.
- 24 Kyoung Lee, Sharifpur M and Meyer JP, Experimental investigation and CFD simulation into Cavity flow Natural Convection for SiO₂- Glycerole 60%and Water 40% Nanofluids.
- 25 Ntumba Tshimanga, Sharifpur M, Meyer JP, Independent Evaluation of Effective Thermal Conductivity Models for Nanofluids.
- 26 Renier Viljoen, Sharifpur M and Meyer JP, Experimental investigation and CFD simulation into Cavity flow Natural Convection for MgO- Glycerole Nanofluids.
- 27 Saboura Yousefi, Sharifpur M and Meyer JP, Theoretical investigation into nanolayer of nanofluids in effective thermal conductivity and effective viscosity.
- 28 Hadi Ghodsinezhad, Sharifpur M and Meyer JP, Experimental investigation into cavity flow of ZnO-water nanofluids with and without porous media.
- 29 E. Inegbedion, M. Sharifpur, J.P. Meyer, Interfacial Transfer Forces in Dispersed Two-Phase Flow: Overview and Evaluation.
- 30 Sharifpur M, Meyer JP, ST. Arnaud Demarillac and Hadi Ghodsinezhad, Experimental and Theoretical Investigation into CuO-water Nanofluids Natural Convection in a rectangular Cavity,
- 31 Andre Maripiha, Sharifpur M and Meyer JP, Experimental investigation and CFD simulation into Cavity flow Natural Convection for Al₂O₃- Glycerole Nanofluids.
- 32 Garbadeen I, Sharifpur M, Slabber JFM and Meyer JP, CFD simulation and experimental investigation into cavity flow Natural Convection for Carbon nanotube-water Nanofluids.

- 33 Sanama C, Sharifpur M and Meyer JP, Mathematical modelling of corrosion in the pipes cause by single phase flow.

Papers presented and published in the international conference proceedings

- 34 Mohsen Sharifpur, Mahmoud Salehi, Ali Nouri Brojerdi and Ali Arefmanesh, 2003, Ensemble Averaged Bubbly Two-Phase Flow Numerical Simulation in Vertical Ducts for the Void-Studying Behavior in BWRs, 11th International Conference on Nuclear Engineering ASME -ICONE 11, p.290, Japan.
- 35 Mohsen Sharifpur, 2006, Overall Review of Modelling in Convective Two-Phase Flow, ASME International Conference, Yeditepe University, Istanbul, Turkey.
- 36 Mohsen Sharifpur, 2007a, Designing Boiling Condenser for more Efficiency in Power Plants and less Environment Defects, ASME -POWER2007-22201, pp. 55-59, USA.
- 37 B. Y. Aldabbagh, Mohsen Sharifpur, Mahdi Zamani, 2007, Experimental Study of Free convection about a Vertical flat plat in Porous Media, DSL 2007 Conference, Portugal.
- 38 Hikmet S. Aybar, Mohsen Sharifpur, 2007, Simplification of Ensemble Averaged Two - Phase Flow with Heat and Mass Transfer for Boiling Inside channels, DSL2007 Conference, Portugal.
- 39 Hikmet S. Aybar, Mohsen Sharifpur, Roozbeh Vaziri, 2008, Pressure Gradient Prediction in Particle-Liquid Two-Phase Flow, IMECE2008-68632, Vol. 10: Heat Transfer, Fluid Flows, and Thermal Systems, Parts A, B, and C pp. 1901-1905, USA.
- 40 Hikmet S. Aybar , Mohsen Sharifpur, Roozbeh Vaziri, 2008, Experimental Investigation of Pressure Drop in one Phase Flow, Particle-Liquid Two-Phase Flow, and Porous Media Consisting of the Same Particle Size, DSL2008 Conference, Spain.
- 41 Mohsen Sharifpur, Sholeh Rostamirad, 2008, Experimental Investigation of Conditions of Water Diffusion in Quality of Legumes. DSL2008 Conference, Spain.
- 42 Mohsen Sharifpur, 2008, Waste to Energy in power plants; Increasing Thermal Efficiency and Decreasing Environment Defects, International Multi-Conference on Engineering and Technological Innovation: IMETI 2008, USA.
- 43 Mohsen Sharifpur, 2008, Designing New Cooling System for Automobiles to Get more Fuel Efficiency and Less Environment Defects, ASME -IMECE2008-68413, Vol. 17: Transportation Systems, pp. 355-359, USA.
- 44 Meyer JP, Nwosu PN and Sharifpur M, 2011, A Critical Review and Algorithm-based Approach for Selection of Appropriate Nanofluid Viscosity Models, ASME 2011 Mechanical Engineering Congress and Exposition, November, 11-17, 2011, Denver, Colorado, USA.
- 45 Sharifpur M and Meyer JP, 2012, The effect of uncertainty of conductivity and viscosity of nanofluids on heat transfer, 1st International Conference on Nanostructures and Nanomaterial: Science and Application Nanotech2012, February 7-9, 2012, Masjed-Soleyman, Iran.
- 46 Sharifpur M and Meyer JP, 2012, Cavity Flow Natural Convection of Nanofluids; Experimental Set-up, Preparation of Nanofluids and Health issues. 1st International Conference on Nanostructures and Nanomaterial: Science and Application Nanotech2012, February 7-9, 2012, Masjed-Soleyman, Iran.
- 47 Mehdi Mehrabi, Sharifpur M, Meyer JP, 2012, Adaptive neuro-fuzzy modeling of The thermal conductivity of alumina-water nanofluids, ASME 2012 3rd Micro/Nanoscale Heat & Mass Transfer International Conference, MNHMT2012, March 3-6, 2012, Atlanta, Georgia, USA.

- 48 Mehdi Mehrabi, Sajad Rezazadeh, Mohsen Sharifpur, Josua P. Meyer, Modelling of proton exchange membrane fuel cell performance by using genetic algorithm-polynomial neural network (GA-PNN) hybrid system, ASME 2012 6th International Conference on Energy Sustainability & 10th Fuel Cell Science Engineering and Technology Conference, ESFuelCell2012, July23-26, 2012, San Diego, California, USA.
- 49 Meyer JP, Nwosu PN, Sharifpur M, Ntumba Tshimanga, Parametric Analysis of Effective Viscosity Models for Nanofluids, ASME 2012 International Mechanical Engineering Congress & Exposition, IMECE 2012, November 9-15, 2012, Houston, Texas, USA.
- 50 Sharifpur M, Ntumba Tshimanga, Meyer JP, Parametric Analysis of Effective Thermal Conductivity Models for Nanofluids, ASME 2012 International Mechanical Engineering Congress & Exposition, IMECE 2012, November 9-15, 2012, Houston, Texas, USA.
- 51 Sharifpur M and Meyer JP, Opportunities in Nanofluid Composites, The 3rd International Conference on Composites: Characterization, Fabrication and Application (CCFA-3) December 18-19, 2012. Tehran, Iran.
- 52 Mehdi Mehrabi, Tuhid Pashaee, Mohsen Sharifpur, Josua P. Meyer, Application of genetic algorithm-polynomial neural network for modelling heat transfer and fluid flow characteristics of a double-pipe heat exchanger, ASME 2013 Summer Heat Transfer Conference HT2013, July 14-19, 2013, Minneapolis, MN, USA.
- 53 SA Adio, M Sharifpur and JP Meyer, Investigation into Effective Viscosity and Electrical Conductivity of $g\text{-Al}_2\text{O}_3$ – Glycerol Nanofluids in Einstein Concentration Regime, 13th UK Heat Transfer Conference, UKHTC2013, 2 - 3 September 2013, Imperial College London,UK.
- 54 Ridwaan Ebrahim, Marilize Everts, Johannes P. Kruger, Elizna Miles, Mohsen Sharifpur and Josua P. Meyer, TURBULENT FLOW ACROSS A ROTATING CYLINDER WITH SURFACE ROUGHNESS, 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), July 14-16, 2014, Orlando, Florida, USA.
- 55 Andre Maripia, M. Sharifpur and J.P. Meyer, The effect of uncertainty of available correlations for effective properties of distilled water- Al_2O_3 nanofluid on Natural Convection Cavity Flow Simulation, 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), July 14-16, 2014, Orlando, Florida, USA.
- 56 Saboura Yousefi A., M. Sharifpur and J.P. Meyer, The Effects of Uncertainty of Nanolayer Thickness on the Heat Transfer through Nanofluids, 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), July 14-16, 2014, Orlando, Florida, USA.
- 57 M. Mehrabi, M. Sharifpur, J.P. Meyer, Convective heat transfer characteristics of low concentration CuO -water nanofluids in the turbulent flow regime based on an artificial intelligence models, The 15th International Heat Transfer Conference (IHTC-15), August 10-15, 2014, Kyoto, Japan.
- 58 Tshimanga Ntumba, M. Sharifpur and J.P. Meyer, The effective of sonication energy and time on thermal conductivity of Glycerol base nanofluids, The 15th International Heat Transfer Conference (IHTC-15), August 10-15, 2014, Kyoto, Japan.
- 59 S.A. Adio, M. Sharifpur and J.P. Meyer, Investigation into the pH and Electrical Conductivity enhancement of ethylene glycol–based Nanofluids of MgO , The 15th International Heat Transfer Conference (IHTC-15), August 10-15, 2014, Kyoto, Japan.
- 60 S. A. Adio, M. Sharifpur and J.P. Meyer, Combined Influence of Size and Sonication Energy on Constant Shear viscosity of MgO –Ethylene Glycol Nanofluids, The 15th International Heat Transfer Conference (IHTC-15), August 10-15, 2014, Kyoto, Japan.

- 61 Mostafa Mahdavi, M. Sharifpur and J.P. Meyer, Comparative study on simulation of convective Al₂O₃-water nanofluid by using ANSYS-FLUENT, The 15th International Heat Transfer Conference (IHTC-15), August 10-15, 2014, Kyoto, Japan.
- 62 Sharifpur, M., Adio, S.A. and Meyer, J.P., Nanofluid Composites: Preparation and Rheology behaviour for Vacuum Infusion Process, The 4th International Conference on Composites: Characterization, Fabrication and Application (CCFA-4), Dec. 16-17 , 2014, Tehran, Iran (accepted).
- 63 Sharifpur, M., Mahdavi M. and Meyer, J.P., CFD Simulation to find Porous Multilayer Limitation of the Vacuum Infusion Process, The 4th International Conference on Composites: Characterization, Fabrication and Application (CCFA-4), Dec. 16-17 , 2014, Tehran, Iran (accepted).

4 OTHER SCHOLARLY RESEARCH-BASED CONTRIBUTIONS

4.1 Referee duties and collaboration with conferences

- Reviewer for refereed accredited journals including RSC Advances Journals, Engineering Science and Technology: an International Journal, International Journal of Thermal Sciences, Heat Transfer Engineering, American Society of Mechanical Engineers (ASME) journals including Heat transfer and Nuclear Engineering and Design
- Reviewer for IHTC14, the 14th ASME International Heat Transfer Conference to be held in Washington DC in August, 2010.
- Reviewer for IMETI 2010 ,The 3rd International Multi-Conference on Engineering and Technological Innovation: June 29th - July 2nd, 2010 – Orlando, Florida, USA
- Reviewer for IHTC14-2010, The 14th International Heat Transfer Conference: August 8th -13th, 2010 – Washington D.C., USA.
- Reviewer for IMETI 2011, The 4th International Multi-Conference on. Engineering and Technological Innovation: *IMETI 2011*. July 19th - July 22nd, 2011 – Orlando, Florida, USA
- Reviewer for 1st International Conference on Nanostructures and Nanomaterial: Science and Application Nanotech2012, February 7-9, 2012
- Invited Speaker at 1st International Conference on Nanostructures and Nanomaterial: Science and Application Nanotech2012, February 7-9, 2012, Masjed-Soleyman, Iran.
- Section chair at 1st International Conference on Nanostructures and Nanomaterial: Science and Application Nanotech2012, February 7-9, 2012, Masjed-Soleyman, Iran.
- Reviewer for SASEC-2012, ASME 2012 The 2nd Southern African Solar Energy Conference, 21-23 May 2012, Stellenbosch, South Africa.
- Technical Program Committee Member at 2012 The International Workshop on Electromagnetism and Communication Engineering (ECE 2012) , July 27th -29th, 2012, Baotou, China.
- Technical Program Committee Member at 2012 The 3rd International Conference on Mechanic Automation and Control Engineering (MACE 2012) ,July 27th -29th, 2012, Baotou, Inner Mongolia, China.

- Guest Editor for selected papers of the 3rd International Conference on Mechanic Automation and Control Engineering (MACE 2012) in order to publish as the special issues of international journals.
- Reviewer for IMETI 2012, The 5th International Multi-Conference on. Engineering and Technological Innovation: IMETI 2012. July 17th - July 20th, 2012 – Orlando, Florida, USA.
- Reviewer for IMECE2012, ASME 2012 International Mechanical Engineering Congress & Exposition, IMECE 2012, November 9-15, 2012, Houston, Texas, USA.
- Jury member for poster section of the 3rd International Conference on Composites: Characterization, Fabrication and Application (CCFA-3) December 18-19, 2012. Tehran, Iran.
- Reviewer for ICAE 2013, International Conference on Applied Energy ICAE 2013, Jul 1-4, 2013, Pretoria, South Africa.
- Technical program committee member for HEFAT2014 (10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics) July 14-16, 2014, Orlando, Florida, USA.
- Reviewer for HEFAT2014 (10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics) July 14-16, 2014, Orlando, Florida, USA.
- Reviewer for SASEC (3rd Southern African Solar Energy Conference) May 11-13, 2015, Kruger National Park, South Africa.
- Conference Organising Committee member for SASEC (3rd Southern African Solar Energy Conference) May 11-13, 2015, Kruger National Park, South Africa.

4.2 Teamwork and collaboration with others

- Member of the research group entitled “Thermofluids Research Group” in the Department of Mechanical and Aeronautical Engineering at University of Pretoria, South Africa, since Dec. 2009.
- Member of the research group entitled “Evaluation of thermal properties of nanofluids” in the Mech. Eng. Dep. at EMU University since fall 2007-2014.
- Speaker for postgraduate students, Nanofluids and the Opportunities, Tarbiyat Modares University, January 2013.
- Speaker for postgraduate students (Civil Engineering), Some Application of Thermal Fluid Science to Civil Engineering, Science and Culture University, January 2013.
- Member of South Africa Solar Thermal Technology Platform (STTP), working Group 3: Solar Heat for Industrial Applications.

4.3 Membership of national and international bodies

- Member in the American Society of Mechanical Engineers (ASME) since 2004.
- Member in the International Institute of Informatics and Systemic (IIIS) since March 2008

5. MANAGEMENT AND ADMINISTRATIVE DUTIES (LEADERSHIP)

Involvement in departmental activities (e.g. administrative functions), faculty (e.g. faculty committees) or other university activities

- Organizer and the chair of engineering & technology division of the Thirteen National Competition of Iranian Universities Students' Books (2003).
- Organizer of the Fluid Mechanics Laboratory in the Mech. Eng. Dep. at EMU (2004-2009)
- Preparing the CFD division of Mech. Eng. Dep. (EMU) multi project for submitting in European Union (EU), March 2005.
- Head of the group of "Design of Experiment (DOE)" for all of the Laboratories of Mech. Eng. Dep. at EMU (2006-2007).
- Establisher and responsible for Nanofluids Research Laboratory in the Department of Mechanical and Aeronautical Engineering at University of Pretoria (Since April 2010).
- Responsible for all CFD software packages (ANSYS-FLUENT, STAR CCM+ and FLoEFD) in the Department of Mechanical and Aeronautical Engineering at University of Pretoria (Since January 2012).