

Nanotech Dubai 2016 - GAMS 2016 Joint Conferences Preliminary Program

05 - 07 December, 2016 | Dubai, United Arab Emirates

December 5, 2016

Session I.A : Nanomaterials Fabrication, Characterization and Properties

Al Safa 1&2 Conference Room (4th Floor)

Session Chairs:

Prof. Suil In, Department of Energy Systems Engineering (DGIST), Rep. of Korea

Prof. Taleb Ibrahim, American University of Sharjah, UAE

08:00-10:00 Registration + Welcoming coffee

10:00-10:30	Synthesis and Characterization of Alginate-grafted Graphene Oxide S. Liu and L. Li	Prof. Lin Li , Nanyang Technological University, Singapore
10:30-10:45	Facile and large-scale Synthesis of High Quality Few-Layered Graphene Nanoplatelets via Methane Decomposition over Unsupported Iron Family Catalysts A.E. Awadallah, A.A. Aboul-Enein, U.F. Kandil and M.R. Taha	Prof. Ahmed Awadallah , Egyptian Petroleum Research Institute, Egypt
10:45-11:00	Effect of Film Thickness Variation on the Formation of Metallic Nanoparticles: Titanium Case F.G. Alzubi	Dr. Feras Alzubi , Kuwait Institute for Scientific Research, Kuwait
11:00- 11:30	Metal Oxide Nanomaterials Prepared in Morphology-Directing Agents	Prof. Ali Bumajdad , Kuwait University, Kuwait
11:30-12:00	Nanostructured Engineered Holographic Diffusers produced by high Throughput Extrusion Patterning V. Boerner, P. Johansen, J. Kafka, D. Kofoed, G. Kofod, T. Kraus, M. Matschuk, J. Mick and C. Stöver	Dr. Jörg Mick , Temicon GmbH, holotools, Freiburg, Germany
12:00-12:30	Electrochemical deposition of alkylphosphonic acid mono-layers on Nitinol A.Vanhoolanda, S. Devillersa, T. Issakovaa, C. Michauxb, J.Delhallea and Z. Mekhalif	Prof. Zineb Mekhalif , University of Namur, Belgium
12:30-12:45	Decoration of multi-wall carbon nanotubes with iron nanoparticles using IR irradiation A. K. Bhakta, S. Detriche, P. Martis, R.J. Mascarenhas, J. Delhalle and Z. Mekhalif	Mr. Arvind Kumar Bhakta , University of Namur, Belgium

12:30-14:00 Lunch Break / Posters Session I

Session Chairs

Prof. Ali Bumajdad, Kuwait University, Kuwait

Prof. Taleb Ibrahim, American University of Sharjah, UAE

14:00-14:45	A wafer-Scale Bernal stacked Bilayer Graphene Film Obtained on a Cu(0.61 %at Ni) foil using atmospheric Pressure vapour Deposition. N. Manyala and J.M. madito	Prof. Ncholu Manyala , University of Pretoria, South Africa
14:45-15:00	Magnetoresistance and domain wall pinning in multisegmented nanowires H. Mohammed, H. Corte-León, Y. P. Ivanov , O. Kazakova and J. Kosel	Mrs. Hanan Mohammed , King Abdullah University of Science and Technology, Thuwal, Saudi Arabia
15:00-15:15	Synthesis of Silicon-Carbon Films by High-Frequency Deposition A. Temirov, I. Kubasov, N. Timushkin, R. Zhukov, M. Malinkovich and Y. Parkhomenko	Mr. Alexandr Temirov , National University of Science and Technology (MISiS), Russian Federation
15:15-15:30	New Information On Water Flow Inside Carbon Nanotubes Revealed by 2D NMR Correlation Spectroscopy J. Hassan, G. Diamantopoulos, L. Gkoura and G. Papavassiliou	Dr. Jamal Hassan , Khalifa University, UAE
15:30-15:45	Effects of types of reduction and optimization multilayer graphene oxide under the influence of Raman Laser Power A. Perez, L.G.P. Huaman, M. Lopez and A. Champi	Mrs. Adela A.Perez Carreno , Pontifical Catholic University, Peru
15:45-16:00	Use of Fe ₃ O ₄ and SiO ₂ Nanoparticles to Develop Smart Drilling Fluids: A Comparative Study Z.Vryzas, L.Nalbantian, V.Zaspalis, Y.Wubulikasimu, O.Mahmoud, H. Nasr-El-Din, M.Bowman and V.C. Kelessidis	Prof. Vassilios Kelessidis , Texas A&M University at Qatar, Doha, Qatar

16:00-16:30 Coffee Break / Posters Session I

Session I.B: Advanced Materials Processing

Session Chairs:

Prof. Zineb Mekhalif, University of Namur, Belgium
Dr. Khaled Saoud, Virginia Commonwealth University in Qatar, Qatar

16:30-17:15	Improvements in mechanical strength and thermal stability of injection and compression molded components in custom-built Poly Lactic Acids (PLAs) M. Barletta , P. Moretti, E. Pizzi, M. Puopolo, S. Vesco and V. Tagliaferri	Prof. Massimiliano Barletta , University of Rome Tor Vergata, Italy
17:15-17:30	Hydrophilic Polymer Brush Layers on Stainless Steel Using Multilayered ATRP Initiator Layer J.E. Friis , R. L. Meyer, K. Daasbjerg and J. Iruthayaraj	Mr. Jakob Ege Friis , Aarhus University, Denmark
17:30-17:45	Temperature- and Time Dependency on High Friction Poly(Styrene-co-Butyl Methacrylate) Coated Paper C. Bjerremand , J. Larsen, and M. Hinge	Mr. Christoffer Bjerremand , Aarhus University, Denmark
17:45-18:00	Hybrid joining of Aluminium 7075 T6 with Poly Ethylene Terephthalate (PET) and Poly Ethylene Terephthalate (PET)/Poly Ethylene Vinyl Acetate (PEVA) blends M. Barletta and A. Gisario	Mrs. Annamaria Gisario , Sapienza University of Rome, Italy

December 6, 2016

Session II.A: Nanomaterials for Energy / Nano electronics

Al Safa 1 Conference Room (4th Floor)

Session Chairs:

Prof. Daniel Choi, Masdar Institute, UAE
Prof. Ncholu Manyala, University of Pretoria, South Africa

09:00-09:45	Nanostructures for energy generation and energy conservation S.M. Bedair	Prof. Salah. M. Bedair , North Carolina State University, USA
09:45-10:30	3-dimensional hybrid architecture with graphene and carbon nanotubes for energy storage applications W.A.Gill, E-H. Yang and D. Choi	Prof. Daniel Choi , Masdar Institute, UAE

10:30-11:00 Coffee Break / Posters Session II

11:00-11:45	Single Crystals and Nanocrystals of Lead Halide Perovskites for Optoelectronic Applications	Dr. Osman M. Bakr , KAUST, Saudi Arabia
11:45-12:00	Flexible Poly(vinylidene fluoride-co-hexafluoropropylene) Nanocomposites filled with Ternary Nanofillers for Energy Harvesting D. Ponnamma , E. Alper, P. Sharma and M. A. AlMaadeed	Dr. Deepalekshmi Ponnamma , Qatar University, Qatar
12:00-12:15	Rapid and efficient removal of fluoride ions from aqueous solution using a polypyrrole coated hydrous tin oxide nanocomposite K. Parashara , N. Ballava, S. Debnathb, K. Pillaya and A. Maitya	Mrs Kamyia Parashara , University of Johannesburg, South Africa

12:30-14:00 Lunch Break / Posters Session II

Session chairs:

Dr. Osman M. Bakr, KAUST, Saudi Arabia
Prof. Salah. M. Bedair, North Carolina State University, USA

14:00-14:45	Magneto-electric Memory in Strain-mediated Multiferroic Nano-heterostructure N*(TbCo ₂ /FeCo)-PMN-PT A. Klimov, N. Tiercelin, Y. Dusch, V. Preobrazhensky , P. Pernod, A. Churbanov and S. Nikitov	Prof. Vladimir Preobrazhensky , Wave Research Center GPI RAS, Russian Federation
14:45-15:15	Single Nanowire Based Nanoelectromechanical Systems D. Erts , R. Meija, L. Jasulaneca, A. I. Livshits, J. Kosmaca, J D. Holmes and J. Andzane	Prof. Donats Erts , University of Latvia, Latvia
15:15-15:30	Hybrid Plasmonic-Photonic nanolaser A. Belarouci	Dr. Ali Belarouci , Ecole Centrale de Lyon, University of Lyon, France
15:30-15:45	MBE Grown InAsSb Nanowire Photodetectors A. Alhodaib , M. Thompson, A.R.J. Marshall and A.Krier	Ms. Aiyeshah Alhodaib , Lancaster University, UK
15:45-16:00	Bidomain ferroelectric crystals: novel actuators for nanotechnology I. Kubasov , S. Ksenich, A. Temirov, M. Malinkovich, A. Bykov and D. Kiselev	Mr. Ilya Kubasov , National University of Science and Technology (MISIS), Russia

16:00-16:30 Coffee Break / Posters Session II		
16:30-17:00	Multivalent electrolyte based V2O5/Activated carbon hybrid supercapacitors K. Solanki and R.K. Guduru	Dr. Ramesh K. Guduru , Lamar University, Texas, USA
17:00-17:15	Novel Positive Electrode Materials for Li and Na Ion Re-chargeable Batteries M.M.S. Sanad, D. Harbaoui, C. Rossignol, E.K. Hlil and S. Obbade	Dr. Moustafa Sanad , Central Metallurgical Research and Development Institute, Egypt
17:15-17:30	Study by Ab-Initio Simulation of Structural, Optical and Electrical Transport Properties of Pure ZnSe in the Cubic Phase Zinc-Blende (B3). A. Rachidi , E.H. Atmani, N. Fazouan and Z. Mahouti	Mr. Abderrahim Rachidi , Hassan II University, Casablanca, Morocco

December 6, 2016

Session II.B: Nanomaterials for Water treatment and Environment

Al Safa 2 Conference Room (4th Floor)

Session Chairs:

Prof. Taleb Ibrahim, American University of Sharjah, UAE

Prof. Suil In, Department of Energy Systems Engineering (DGIST), Rep. of Korea

09:00-09:45	Advanced nanofibers for water treatment and desalination R. Hashaikeh	Prof. Raed Hashaikeh , Masdar Institute, UAE
09:45-10:30	Applications for Ultraclean Metals Nanofluids Innovative Green Technology & Industrial Unit for Nanofluids Productive Manufacturing S. Khagen Bose, Y. Choong Ma, L. Kistersky and V.Sadokhin	Prof. Ludmila Kistersky , Global Technologies Limited, UAE

10:30-11:00 Coffee Break / Posters Session II

11:00-11:45	Application of Graphene, Carbon Nanotubes, and their Magnetite derivatives for the Removal of Heavy Metals and Oil from Produced and Industrial Wastewater T.H. Ibrahim , M.A. Sabri, and M.I. Khamis	Prof. Taleb Ibrahim , American University of Sharjah, UAE
11:45-12:00	Silver Nanopatch Formation in Ceramic Porous Media for Household-Level Drinking Water Purification: Results of Laboratory and Field Research J.A. Smith	Dr. James Smith , University of Virginia, USA
12:00-12:15	Layer-by-Layer multilayer assemblies of silver nanoparticles with Ni-Crown type Polyoxometalates for the electrocatalytic reduction of chlorate B. Ali and T.McCormac	Ms. Bushra Ali , Dundalk Institute of Technology, Ireland
12:15-12:30	Mechanically-induced top-down synthesizing of nanophases of TiO ₂ and ZnO photocatalysts and their nanocomposite for potential applications in wastewater treatment L. Al-Hajji , E. Shaaban, M.S. El-Eskandarany and F. Al-Mutawaa	Dr. Latifah Alhajji , Kuwait Institute for Scientific Research, Kuwait
12:30-12:45	Recyclable Epoxy for Demanding Utilisation and Lifetime M. L. Henriksen and M. Hinge	Mr. Martin Henriksen , Aarhus University, Denmark

12:30-14:00 Lunch Break / Posters Session II

Session chairs:

Dr. Khaled Saoud, Virginia Commonwealth University in Qatar- Qatar

Prof. Raed Hashaikeh, Masdar Institute-United Arab Emirates

14:00-14:45	ZnO based Heterogeneous Photocatalytic Water Treatment Under different Irradiation Conditions K. Saoud	Dr. Khaled Saoud , Virginia Commonwealth University in Qatar, Qatar
14:45-15:00	Treatment of Palm Oil Mill Effluent with Recycled Titanium Dioxide Waste as a Coagulant M.O. Fatehah and L.Y. Tan	Dr. Fatehah Mohd Omar , Sains Malaysia University, Malaysia
15:00-15:15	Hierarchical ZSM-5 catalysts for MTO reaction: catalytic performance and deactivation L. Lakiss , Q. Zhengxing, J-P. Gilson, F. Ngoye, L. Pinard, K. Thomas, V. Valtchev, A. Vicente and C. Fernandez.	Dr. Louwanda Lakiss , Caen University, France .

Session II.C: Functional BioMaterials

Session chairs:

Dr. Khaled Saoud, Virginia Commonwealth University in Qatar, Qatar

Prof. Massimiliano Barletta, University of Rome Tor Vergata, Italy

15:15-16:00	Nature Inspires Novel Hierarchical Materials with self-adapting and self-healing ability: application in regenerative medicine A.Tampieri	Prof. Anna Tampieri , ISTEC-CNR, Faenza, Italy
16:00-16:30 Coffee Break / Posters Session II		
16:30-17:00	Amperometric Nanobiochemical Sensing and Signalling of Disease Biomarkers E. Iwuoha , N. Ross, X. Fuku, A. Jijana and S. Douman	Prof. Emmanuel Iwuoha , University of Western Cape, South Africa
17:00-17:30	A Non-invasive CAD system for early detection of RILI using 4D-CT images F.Taher , A. Soliman and A. ElBaz	Dr. Fatma Taher , Khalifa University, UAE
17:30-17:45	Biomorphic transformations of wood into large biomimetic hydroxyapatite scaffolds for limb regeneration S. Sprio , A. Ruffini, A. Ballardini, M. Montesi, S. Panseri and A. Tampieri	Dr. Simone Sprio , Institute of Science and Technology for Ceramics, ISTEC-CNR, Italy

December 7, 2016

Session III: Nanotechnology for Life science and Medicine

Al Safa 1&2 Conference Room (4th Floor)

Session chairs:

Dr. Khaled Saoud, Virginia Commonwealth University in Qatar, Qatar

09:00-09:45	Smart Biomimetic nanoparticles: a new platform for nanomedicine A.Tampieri	Prof. Anna Tampieri , ISTEC-CNR, Faenza, Italy
09:45-10:30	Hierarchical Micro/Nano-Porous Acupuncture Needles Offering Enhanced Therapeutic Properties S-I. In	Prof. Suil In , Department of Energy Systems Engineering (DGIST), Rep of Korea
10:30-11:00 Coffee Break		
11:00-11:30	New generation of fluorescent markers for application in Medicine as lung cancer marker M.M. Godlewski, J. Kaszewski, A. Szal, A. Slonska, M.A. Domino, Z. Gajewski and M.Godlewski	Prof. Marek Godlewski , Institute of Physics PAS, Poland
11:30-11:45	Intracellular delivery via heat induction of gold nanoneedles J. E. Perez , M. Kavalzhiev, T. Ravasi and J. Kosel	Mr Jose Perez , King Abdullah University of Science and Technology, Saudi Arabia
11:45-12:00	High-k oxides by Atomic Layer Deposition - applications as anti-microbial layers M. Godlewski, S. Gieraltowska, L. Wachnicki, R. Pietuszka, B.S. Witkowski, M.M. Godlewski , A. Slonska and Z. Gajewski	Dr. Michal Godlewski , Institute of Physics PAS, Poland
12:00-12:15	Layer-by-Layer Self-Assembled Dynamic Microcapsules (DynaMicCaps) with Polymer and Protein Shell-walls N.F.D. AIDala'een, I.N. Sabri, W.N.K. Wan Mohamad, N. Alias, A.M. Ali and J. Shaikh Mohammed	Dr. Javeed Shaikh Mohammed , Sultan Zainal Abidin University (UniSZA), Malaysia
12:15-12:30	E171: physico-chemical characterisation of food-grade TiO ₂ M. Lorenzetti , A. Drame and S. Novak	Dr. Martina Lorenzetti , Jožef Stefan Institute, Slovenia
12:30-12:45	Graphene interaction with immune cells. M. Orecchioni, D. Jasim, M. Pescatori, F. Sgarella, D. Bedognetti, K. Kostarelos, A. Bianco and L.G. Delogu	Dr. Lucia Gemma Delogu , University of Sassari, Italy
13:00-14:00 Lunch		

Posters Sessions

December 5, 2016

Session I: Nanomaterials Fabrication, Characterization and Properties

Al Safa 3&4 Conference Room (4th Floor)

N.	Poster Title	Author/Affiliation/Country
1	Size-Controlled Nano-Dots with Tunable Emissive Property Consisted of a 'Single Conjugated Polymer' J. Kim , G. Jang and T. Seung Lee	Mr Jongho Kim , Chungnam National University, Republic of Korea
2	Hybridization of Conjugated Polymer Nanoparticles with Inor-ganic materials for Biological Detection T. Seung Lee , G. Jang, J. Kim, C. Kim and H. Namgung	Prof. Taek Seung Lee , Chungnam National University, Rep. of Korea
3	Grafting of Boron Cluster Compounds onto different Substrates M. Benkocká , S. Lupínková, V. Šícha, M. Londesborough, J. Matoušek and Z. Kolská	Ms. Monika Benkocká , J. E. Purkynje University, Czech Republic
4	Fluorescent Sensor Probe for Radioactive Isotope Detection using Conjugated Polymer G. Jang , J. Kim and T. Seung Lee	Mr Geunseok Jang , Chungnam National University, Rep. of Korea
5	Investigation of Potential Parameters Effect on Stable Structures of Pt-Pd Alloy Nanoparticles by Particle Swarm Algorithm G.F. Shao , M. Zhu, T.D. Liu and Y.H. Wen	Dr. Guifang Shao , Xiamen University, China
6	Electrical Properties of Hybrid Nanocomposites based on Reduced Graphite Oxide, Multiwall Carbon Nanotubes and Natural Rubber M. Yazdani-Pedram , D. Vargas-Astudillo, A. Contreras-Cid and H. Aguilar-Bolados	Dr. Mehrdad Yazdani-Pedram , University of Chili, Chile.
7	Tunable Open Cavities: A Powerful and Versatile Tool for Ex-ploring Light-Matter Interactions L. Giriunas , F. Li, S. Dufferwiel, E. Cancellieri, A. Trichet, P. M. Walker, D. M. Whittaker, J. M. Smith, E. Clarke, I. Farrer, D.A. Ritchie, M. S. Skolnick and D. N. Krizhanovskii	Mr. Laurynas Giriunas , University of Sheffield, UK
8	Intracellular Thermometry by Using Flourescent Carbon Dots S. Kalytchuk , K. Poláková, Y. Wang, J.P. Froning, K. Cepe, A.L. Rogach and R. Zbořil	Dr. Sergii Kalytchuk , Palacký University Olomouc, Czech Republic
9	Recent Advancement of Electromechanical propereties of metal oxide composites for supercapacitor M. Huseein and M. Al Ahmad	Ms. Minas Huseein , United Arab Emirates University , AlAin, UAE
10	Kinetics of the Acetins Production from Glycerol Esterification with Amberlyst-35 as Catalyst K.V. Caballero , V.G. Baldovino-Medrano and G.E. Ramírez-Caballero	Ms. Karen Vannessa Caballero , De Santander Industrial Universiy, Colombia
11	High performance P-type transparent conducting oxide film by RF magnetron sputtering Z. Nengduo and G. Hao	Mr. Nengduo Zhang , National University of Singapore, Singapore
12	Structural Transformation of Titania Induced by High Energy Ball Milling L. Al-Hajji, A. Al-Hazza , E. Shaban, F. Al-Mutawa and M. El-Eskandarany	Dr. Abdulsalam Alhazza , Kuwait Institute for Scientific Research, Kuwait
13	Preparation, Characterization and Catalytic Activity of Rare Earth Metal Oxides Modified Nanogold Supported CeZrO ₂ Catalysts A. Faqeeh , K. Narasimharao, T. Ali and S. Basahel	Mr. Alaa Faqeeh , King Abdulaziz University, Saudi Arabia
14	Influence of Mechanical Parameters on the Tribological and Thermal Behaviors of Steel-Composite Carbone/Carbone Couple A. Benfougha , K. Boubendira, N. Sassane, M. Boulkra, S. Boukhezar, N. Boughdir and N. Hamzaoui	Mr. Abdeldjalil Benfoughal , Research Center in Industrial Technologies (CRTI), Algiers- Algeria
15	Study of microscopic and thermal properties of iron-based powders obtained by high-energy ball milling of Calamine A. Balaska , T. Chouchane, A. Boudiaf, B. Maalem , A. Hamoud and S. Djemili	Dr. Adel Balaska , Resaarch Center In industrial technologies CRTI- Algiers, Algeria
16	Application Finite Element Method for Temperature Distribution In a fil L. Cherrad , H. Benjamaa, D. Idiou and K. Gherfi	Mr. Mohamed Lotfi Cherrad , Research in Research Center in Industrial Technologies CRTI, Algeria
17	TiO ₂ - graphene gas sensor for the detection of CO ₂ M. Kamel and M. Al Ahmad	Ms. Mayar Kamel United Arab Emirates University, AlAin, UAE

December 6, 2016

Session II. A: Nanomaterials for Water treatment and Environment/ NanoElectronics

Al Safa 3&4 Conference Room (4th Floor)

N.	Poster Title	Author/Affiliation/Country
1	Highly sensitive nano-based touch sensor for robotics applications A. Al Lataifeh and M. Al Ahmad	Ms. Areen Allataifeh , United Arab Emirates University, Al Ain, UAE
2	Electronic and Structural Properties of V-doped CdTe semiconductor in ZB Phase S. Djeroud	Prof. Sacia Djeroud , University 8 Mai 1945 Guelma, Algeria
3	High Performance Asymmetric supercapacitor based on MoS ₂ /GF and activated carbon T.M. Masikhwa , J.K. Dangbegnon, A. Bello, M.J. Madito, D. Momodu and N.Manyala	Ms. Tshifhiwa Masikhwa , University of Pretoria, South Africa
4	Novel Nanocomposites for heavy Metal Ions Removal from Water MM Esmat , AH Zaki, AA Farghali, IM El-Sherbiny and MH Khedr	Mr. Mohamed Esmat , Beni-Suef University, Egypt
5	Detection of Defects in the Materials by Using the Heat Equation S. Boulkroune , M. Chaour, A. Boudiaf and S. Benchiheub	Mr. Sofiane Boulkroune , Research Center in Industrial Technologies (CRTI), Algeria
6	Towards a ZnO nanorods/ML graphene based piezoelectric nano-generator T. Mohiuddin Ghulam and M. Al Ruqieshi	Dr. Tariq Mohiuddin Ghulam , Sultan Qaboos University, Department of Physics, Muscat, Oman

December 6, 2016

Session II. B: Nanotechnology for Life science and Medecine

7	Nanostructured surfaces of solid substrates for bio-applications T. Knapová , M. Benkocká, S. Lupínková, V. Šícha and Z. Kolská	Mrs. Tereza Knapová , J. E. Purkyně University, Czech Republic
8	Extraction of Chilean Alginate and Preparation of Alginate-PCL Fibers Through Electrospinning A. Neira Carrillo	Dr. Andrónico Neira Carrillo , University of Chile- Chile
9	Advanced Plasma Treatment of Single-walled Carbon Nanotube for more Creation of Functional groups to Immobilize Biomoleculars J.H. Kim and N.K. Min	Mr. Joon Hyub Kim , Department of Control and Instrumentation Engineering, Korea University, Rep. of Korea
10	Targeting Leukemic Cells with Iron Nanowires N. Alsharif , J. Perez, A. Bandera, S. Gadhoun, J. Merzaban, T. Ravasi and J. Kosel	Ms. Nouf Alsharif , King Abdullah university of science and technology Saudi Arabia
11	Utilising Novel Nanoparticles for DNA Vaccine Delivery A. Penumarthi , D. Parashar, R. Shukla, I. Macreadie and P. Smooker	Mrs. Alekhya Penumarthi , RMIT University, Melbourne, Australia
12	Surface coated chitosan nanoparticles for the modulation of the protein corona I. Alradwan , A. Almalik, I.O. Alanazi, W.M. Alghamdi and Ali H. Alhassan	Dr. Ibrahim Alradwan , King Abdulaziz City for Science and Technology (KACST), Saudi Arabia
13	Garlic nanoemulsions intended for broiler growth performance T.C. Lebepe , Lebogang Katata-Seru, Cornelia Lebopa	Mr. Thabang Calvin Lebepe , North West University, South Africa