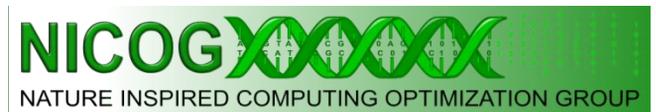




**Programme for the 7th World Conference on Nature and
Biologically Inspired Computing (NaBIC 2015)
and the
6th International Conference on the Computational
Aspects of Social Networks (CASoN 2015)**

1-3 December 2015

Pietermaritzburg, South Africa



Day 1 - Tuesday, 1 December 2015

8:00-8:30	Registration and Tea
8:30-9:00	Opening ceremony
9:00-10:00	Plenary talk
10:00-10:15	Tea
Session: Classification and Clustering	
10:15-10:30	A Diverse Meta Learning Ensemble Technique to Handle Imbalanced Microarray Dataset <i>Sujata Dash</i>
10:30-10:45	k-MM: A Hybrid Clustering Algorithm based on k-means and k-medoids Habiba Drias, <i>Nadjib Fodil Cherif</i> and Amine Kechid
10:45-11:00	EEG Signals of motor imagery Classification Using Adaptive Neuro-Fuzzy Inference system <i>Shereen Abdel-Aal</i> , Rabie Ramadan and Neveen Ghali
11:00-11:15	Modeling Insurance Fraud Detection Using Imbalanced Data Classification <i>Amira Kamil Ibrahim Hassan</i> and Ajith Abraham
11:15-11:30	Sinuosity Coefficients for Leaf Shape Characterisation <i>Jules Raymond Kala</i> , Serestina Viriri and Deshendran Moodley
11:30-11:45	Training Pattern Classifiers with Physiological Cepstral Features to Recognise Human Emotion <i>Abdultaofeek Abayomi</i> , Oludayo O. Olugbara, Emmanuel Adetiba and Delene Heukelman
11:45-12:00	Bioinspired Tabu Search for Geographic Partitioning <i>Beatriz Bernábe Loranca</i> , Rogelio González Velazquez, Martín Estrada, Jorge Alberto Ruiz-Vanoye and Abraham Sánchez López
12:00-13:00	Lunch
Session: Evolutionary Algorithms	
13:00-13:15	A Self-configuring Multi-Strategy Multimodal Genetic Algorithm <i>Evgenii Sopov</i>
13:15 -13:30	Using Standard Components in Evolutionary Robotics to Produce an Inexpensive Robot Arm <i>Michael Louwrens</i> , Mathys Du Plessis and Jean Greyling
13:30 - 13:45	An Aphid Inspired Evolutionary Algorithm <i>Duncan Coulter</i> and <i>Michael Cilliers</i>
13:45 - 14:00	Memetic and Opposition-Based Learning Genetic Algorithms for Sorting Unsigned Genomes by Translocations Mauricio Ayala-Rincon, <i>Jose Luis Soncco-Alvarez</i> , Lucas Angelo Da Silveira and Thaynara Arielly de Lima

14:00 - 14:15	A Study of Genetic Programming and Grammatical Evolution for Automatic Object Oriented Programming: A Focus on the List Data Structure <i>Kevin Igwe, Nelishia Pillay</i>
14:15 - 14:30	Evolving Heuristic Based Game Playing Strategies for Checkers Incorporating Reinforcement Learning <i>Clive Frankland, Nelishia Pillay</i>
14:30 - 14:45	A Generative Hyper-Heuristic for Deriving Heuristics for Classical Artificial Intelligence Problems <i>Nelishia Pillay</i>
14:45 - 15:00	Tea
15:00	Buses leave to Tala Game Reserve
18:00	Return from Tala Game Reserve

Day 2 - Wednesday, 2 December 2015

8:00-8:30	Registration and Tea
8:30-9:30	Plenary Talk
Session: Immunological Computation	
9:30-9:45	PARA-Antibodies: An Immunological Model for Clonal Expansion Based on Bacteriophages and Plasmids <i>Mark Heydenrych and Elizabeth Ehlers</i>
9:45-10:00	ImmunoOptiDrone - Towards re-factoring an Evolutionary Drone Control Model for Use in Immunological Optimization Problems <i>Duncan Coulter and Kevin Downs</i>
10:00-10:15	Tea
Session: Particle Swarm Optimization	
10:15-10:30	Using Headless Chicken Crossover for Local Guide Selection When Solving Dynamic Multi-objective Optimization <i>Marde Helbig and Andries Engelbrecht</i>
10:30-10:45	Newcastle Disease Virus Clustering Based On Swarm Rapid Centroid Estimation <i>Fatma H. Ismail, Ahmed Fouad Ali, SalehEsmat and Aboul Ella Hassanien</i>
10:45-11:00	Updating the Global Best and Archive Solutions of the Dynamic Vector-evaluated PSO Algorithm Using Epsilon-dominance <i>Marde Helbig</i>
11:00-11:15	Modelling Image Processing with Discrete First-Order Swarms <i>Leif Bergerhoff and Joachim Weickert</i>
11:15-11:30	Cooperation Evolution in Structured Populations by Using Discrete PSO Algorithm <i>Xiaoyang Wang, Lei Zhang, Xiaorong Du and Yunlin Sun</i>

11:30-11:45	Automatic Discovery and Recommendation for Telecommunication Package using Particle Swarm Optimization <i>Shanshan Liu, Bo Yang, Lin Wang and Ajith Abraham</i>
11:45-12:00	Application of Biologically Inspired Methods to Improve Adaptive Ensemble Learning <i>Gabriela Kosková, Viera Rozinajová, Anna Bou Ezzeddine, Mária Lucká, Peter Lacko, Marek Lóderer, Petra Vrablecová and Peter Laurinec</i>
12:00-13:00	Lunch
Session: New Trends and Applications	
13:00-13:15	A Variable Neighbourhood Search for the Workforce Scheduling and Routing Problem <i>Rodrigo Lankaites Pinheiro, Dario Landa-Silva and Jason Atkin</i>
13:15-13:30	An Ensemble of Neuro-Fuzzy Model for Assessing Risk in Cloud Computing Environment <i>Nada Ahmed, Varun Ojha and Ajith Abraham</i>
13:30 -13:45	Identification of Pathogenic Viruses Using Genomic Cepstral Coefficients with Radial Basis Function Neural Network <i>Emmanuel Adetiba, Oludayo O. Olugbara and Tunmike B. Taiwo</i>
13:45 - 14:00	A Neural Network Model for Road Traffic Flow Estimation <i>Ayalew Belay Habtie, Ajith Abraham and Dida Midekso</i>
14:00-14:15	A Priority Rate-based Model for Service Differentiation in Wireless sensor Networks <i>Loini Tshiningayamwe, Guy Alain Lusilao Zodi and Mqhele Dlodlo</i>
14:15 - 14:30	Real-time Vehicle Emission Monitoring and Location Tracking Framework <i>Eyob Shiferaw, Ayalew Belay and Ajith Abraham</i>
14:30 -14:45	A Hyper-Heuristic Approach to Solving the Ski-Lodge Problem <i>Ahmed Hassan and Nelishia Pillay</i>
14:45 - 15:00	Real-time Vehicle Emission Monitoring and Location Tracking Framework <i>Eyob Shiferaw, Ayalew Belay and Ajith Abraham</i>
15:00 - 15:15	Tea
Session: Ontologies and Social Networks	
15:15 - 15:30	A Semantic Reasoning Method Towards Ontological Model for Automated Learning Analysis <i>Kingsley Okoye, Abdel-Rahman H. Tawil, Usman Naeem and ElyesLamine</i>
15:30 - 15:45	Detection of zero day exploits using real-time social media streams <i>Dennis Kergl, Robert Roedler and Gabi Dreo Rodosek</i>

15:45 - 16:00	Cognitive Radio Networks: A Social Network Perspective <i>Efe Orumwense, Thomas Afullo and Viranjay M Srivastava</i>
16:00-16:15	Profile Matching across Online Social Networks Based on Geo-Tags Robert Roedler, <i>Dennis Kergl</i> and Gabi Dreo Rodosek
16:15 - 16:30	Outlier Entity Detection in Email Communication Network Maqsood Mahmud, <i>Pranavkumar Pathak, Vaishalibahen Pathak and Zahra Afridi</i>
16:30 - 16:45	An Enhanced Intrusion Alerts Verification and Correlation Mechanism for Network Intrusion <i>Aderonke Ikuomola</i>
16:45 - 17:00	Design of Nature inspired Broadband Microstrip Patch antenna for Satellite Communication <i>Pushpendra Singh, Kanad Ray and Sanyog Rawat</i>
17:00 - 17:15	Aesthetic Differential Evolution Algorithm for Solving Computationally Expensive Optimization Problems <i>Tarun Kumar Sharma, Ajeet Singh Poonia, Shweta Sharma and Jitendra Rajpurohit</i>
17:15 - 17:30	Security in Wireless Sensor Networks : A Protein Biosynthesis Based Method <i>Mohamed Ali Aboudi, Sarra Ayouni and Sadok Ben Yahia</i>
17:30 - 17:45	Closing Ceremony
18:00 - 22:00	Conference Dinner - Rockafellas Theatre of Food

Day 3 - Thursday, 3 December 2015

Social Day

The last day of the conference is a social day on which delegates can visit attractions of their choice in and around Pietermaritzburg:

Local Attractions	
These are attractions in Pietermaritzburg and the hotel will be able to assist with transportation to and from the location	
Tatham gallery	http://www.tatham.org.za/
Msunduzi Museum	http://www.msunduzimuseum.org.za/
KwaZulu-Natal Botanical Gardens	http://www.southafrica.net/za/en/articles/entry/article-southafrica.net-kwazulu-natal-botanical-gardens
Surrounding Areas	
Dankiza tours can assist with guided tours for the attractions listed below. Dankiza tours has a desk at Pietermaritzburg airport and can be contacted at dankizatours@gmail.com , +27333460252 or +27760313439.	

Mandela Capture Site and Museum	http://www.thecapturesite.co.za/
Midlands Meander	http://www.midlandsmeander.co.za/ Tour guide: Contact Geoff Calmeyer for enquiries: calmeyer@futurenet.co.za 072 347 9904
Hluhluwe Game Reserve	http://www.kznwildlife.com/
Gwahumbe Game Reserve	http://www.gwahumbe.co.za/
uShaka Marine World	http://www.ushakamarineworld.co.za/