



# The 10th International Conference on Optimization: Techniques and Applications (ICOTA 10)



# PROGRAM



July 23-26, 2016

Ulaanbaatar, Mongolia

## **Organizing Institute**

Institute of Mathematics, NUM

## **Co-Organizing Institutes**

National University of Mongolia

University of the Humanities

German-Mongolian Institute for Resources and Technology

## **Organizing Committee**

### **Co-chairs**

Enkhbat Rentsen (National University of Mongolia)

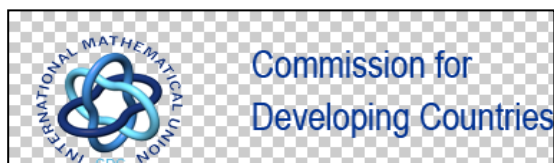
Altannar Chinchuluun (National University of Mongolia)

Altangerel Lkhamsuren (German-Mongolian Institute for Resources and Technology)

### **Members**

Tingwen Huang (Texas A&M University at Qatar), Fei Liu (Jiangnan University), Wei Wei (Guizhou Minzu University), Zhong Wan (Central South University), Xiangyu Wang (Curtin University), Aiguo Wu (Harbin Institute of Technology Shenzhen Graduate School), Changfan Zhang (Hunan University of Technology), Changzhi Wu (Curtin University), Changjun Yu (Shanghai University and Curtin University)

Sponsored by:



## **Local Organizing Committee**

### **Chair**

N. Tungalag (National University of Mongolia)

### **Conference secretary**

B. Barysbyek (Institute of Mathematics, NUM)

### **Members**

J.Davaadulam (National University of Mongolia), B.Barsbold (National University of Mongolia), D.Bayanjargal (National University of Mongolia), M.Mend-Amar (National University of Mongolia), G.Battur (National University of Mongolia), B.Ser-Od (Mongolian University of Science and Technology), T.Bayartugs (Mongolian University of Science and Technology), A.Elbegjargal (Mongolian University of Science and Technology), S.Batbileg (National University of Mongolia), J.Enkhbayar (National University of Mongolia), Ch.Battuvshin (University of the Humanities), D.Buyantogtokh (Mongolian University of Science and Technology), Ts.Batsukh (Institute of Finance and Economics), Ch.Naranchimeg (Institute of Finance and Economics), T.Dultuya (National university of Mongolia), A.Enkhbolor (National university of Mongolia), A.Bayarbaatar (National university of Mongolia), Ts.Tuvshintur (National university of Mongolia)

## **Steering Committee**

### **Co-chairs**

Kok Lay Teo (Curtin University)

Hsiao-Fan Wang (National Tsing Hua University)

### **Members**

Xinmin Yang (Chongqing Normal University), Duan Li (Chinese University of Hong Kong), Hidefumi Kawasaki (Kyushu University), Ryan Loxton (Curtin University), Masakazu Muramatsu, University of Electro-Communications), Xiaojiao Tong (Hunan First Normal University), Zongli Lin (University of Virginia), Wenyu Sun (Nanjing Normal University), Takahashi Tsuchiya (National Graduate Research Institute for Policy Studies), Song Wang (Curtin University), Naihua Xiu (Beijing Jiaotong University), Chao Xu (Zhejiang Univesity), Xiaoqi Yang (Hong Kong Polytechnic University), Liwei Zhang (Dalian University of Technology), Chun Piau Teo (National University of Singapore), Wenxing Zhu (Shanghai University China)

## **Advisory Committee**

### **Co-chair**

Wuyi Yue (Konan University)

Soonyi Wu (National Cheng Kong University)

### **Members**

Oleg Burdakov (Linkoping University), Shu-Cherng Fang (North Carolina State University), Bean San Goh (Curtin University, Sarawak), Joaquim Joao Judice (University of Coimbra), Shengjie Li (Chongqing University), Wing Kuen Ling (Guangdong University of Technology), Cheng Chew Lim (University of Adelaide), Wanquan Liu (Curtin University),

Brian Rodrigues (Singapore Management University), Hongye Su (Zhejiang University), Yonghong Wu (Curtin University), Wenxun Xing (Tsinghua University), Bo Yu (Dalian University of Technology), Ming-Jong Yao (National Chiao Tung University), Liqun Qi (Hong Kong Poly University), Wataru Takahashi (Tokyo Institute of Technology), Jane Ye (Victoria University), Tamaki Tanaka (Niigata University), Xiaodong Hu (Chinese Academy of Science)

## **International Program Committee**

### **Co-chairs**

Masao Fukushima (Nanzan University)

Jie Sun (Curtin University and National University of Singapore)

### **Members**

Samir Adly (University of Limoges), Yanqin Bai (Shanghai University), Adil Bagirov (Federation University Australia), Ilker Birbil (Sabanci University), Regina Burachik (University of Southern Australia), Jein-Shan Chen (National Taiwan Normal University), Yuhong Dai (Chinese Academy of Science), Shunsuke Hayashi (Tohoku University), Nanjing Huang (Sichuan University), Lingchen Kong (Beijing Jiaotong University), Donghui Li (South China University), Gui-Hua Lin (Shanghai University), Xinwei Liu (Hebei University of Technology), Melvyn Sim (National University of Singapore), Defeng Sun (National University of Singapore), Keiji Tatsumi (Osaka University), Gerhard-Wilhelm Weber (Middle East Technical University), Zhiyou Wu (Chongqing Normal University), Honglei Xu (Curtin University), Cedric KF Yiu (Hong Kong Polytechnic University), Kai Zhang (Shenzhen University), Su Zhang (Nankai University), Guanglu Zhou (Curtin University), W. Art Chaovalitwongse (University of Washington, USA), Wolfram Wiesemann (Imperial College London, UK), Sergiy Butenko (Texas A&M University, USA), I. Tseveendorj (Universite de Versailles-Saint Quentin, France), S. Bau (University of the Witwaterstand), Radu Loan Bot (University of Vienna), B.A. Srochko (Irkutsk State University), A.S. Antipin (Moscow Computational Center), B.S. Buldaev (Buryat State University), B.A. Dikhta (Irkutsk State University), O. Vasilyeva (University of Valle, Colombia), A.D. Mijidon (East-Siberian University of Technology), Joydeep Dutta (Indian Institute of Technology), Khalide Jbilou (Université du Littoral Côte d'Opale), Ruey-Lin Sheu (National Cheng-Kung University)

July 23, 2016 Saturday			
08.30-09.30	<b>Best Western Premier Tuushin hotel</b>	Registration	
<b>Plenary Session</b>	<b>Soyombo Hall</b>		
09:30-10:10	Opening Ceremony		
10:10-10:20	Coffee Break		
Time	Speaker and title	Chair	
10:20-11:05	Shu-Cherng Fang.( North Carolina State University, United States) <i>Linear Reformulation of Polynomial Discrete Programming for Fast Computation</i>	A.Chinchuluun	
11:05-11:50	Panos M Pardalos.(University of Florida) <i>A new Information theory perspective on network robustness</i>		
11:50-12:35	Akiko Yoshise (University of Tsukuba, Japan) <i>Some Tractable Subcones for Testing Copositivity</i>		
<b>12:35-14:00</b>	<b>Lunch</b>	<b>Tuushin Hotel</b>	
<b>Session M1</b>	<b>Global Optimization and Optimal Control</b>		
	<b>3th Bld. of University of the Humanities</b>		
	<b>Room 401, Floor-4</b>		
Time	Speaker and title	Chair	
14:00-14:15	Zhibin Deng, Shu-Cherng Fang, Wenxun Xing, Ye Tian and Cheng Lu. <i>Globally Solving Quadratic Programs with Complementarity Constraints via Completely Positive Programming</i>	Olga Vasilieva	
14:15-14:30	Daiver Cardona-Salgado, Doris E. Campo-Duarte and Olga Vasilieva. <i>Optimal control approach for dengue prevention using Wolbachia-based biocontrol</i>		
14:30-14:45	Sona Taheri and Adil Bagirov. <i>DC programming approach to clusterwise linear <math>L_1</math> regression</i>		
14:45-15:00	Sie Long Kek, Wah June Leong and Kok Lay Teo. <i>Conjugate Gradient Approach for Nonlinear Optimal Control Problem with Model-Reality Differences</i>		
15:00-15:15	Enkhbat Rentsen. <i>Global Optimization Approach to Malfatti's generalized Problem</i>		
15:15-15:30	Akylbek Kerimbekov and Elmira Abdyldaeva. <i>The optimal vector control for the elastic oscillations described by Fredholm integral-differential equations</i>		
15:30-15:45	Coffee Break		
15:45-16:00	Evgeniya Finkelstein and Alexander Gornov. <i>Technology of time-optimal control problem solution based on the reachable set approximation</i>		
16:00-16:15	Lkhamsuren Altangerel. <i>Gap function approach to the generalized Nash equilibrium problems via duality</i>		
16:15-16:30	Andrei Orlov and Alexander Strekalovsky. <i>Optimization software for solving hexamatrix games</i>	Honglei Hu	
16:30-16:45	Vladimir Andreevich Srochko and Vladimir Georgievich Antonik. <i>Sufficient Optimality Conditions for Some Control Problems</i>		

16:45-17:00	Battur Gompil and Purev-Ochir Lkhamsuren. <i>An application of Barzilai-Borwein method to generalized Nash equilibrium problems</i>	
17:00-17:15	Changjun Yu. <i>Smoothing Spline Via Optimal Control Under Uncertainty</i>	
17:15-17:30	Klara Mizhidon. <i>The problem of tracking a standard trajectory</i>	
<b>18:00</b>	<b>Welcome reception</b>	<b>Ulaanbaatar Hotel</b>

<b>Session M2</b>	<b>Application of Mathematical Modeling and Optimization Theory and Methods in Various Areas</b>
	<b>3th Bld. of University of the Humanities</b>

<b>Room 501, Floor-5</b>		
<b>Time</b>	<b>Speaker and title</b>	<b>Chair</b>
14:00-14:15	Hsiao-Fan Wang and Ching-Yi Kuo. <i>Pattern Recovery from Small Data Set with Back-propagation Neural Networks</i>	
14:15-14:30	Takamasa Akiyama and Hiroaki Inokuchi. <i>The combinatorial optimization of distance based toll for urban expressway</i>	
14:30-14:45	Xu Honglei. <i>Stability Analysis of Delayed Neural Networks with Slope-bounded Activation Functions</i>	
14:45-15:00	Yuan Zhao and Wuyi Yue. <i>Spectrum Allocation Strategy with a Probabilistic Preemption Scheme in Cognitive Radio Networks</i>	Barsbold.B
15:00-15:15	Jian Luo and Ye Tian. <i>Clustering via Fuzzy One-Class Quadratic Surface Support Vector Machine</i>	
15:15-15:30	Napsu Karmita, Adil Bagirov and Sona Taheri. <i>New DC diagonal bundle method for clustering in very large data sets</i>	
15:30-15:45	<b>Coffee Break</b>	
15:45-16:00	Belarmino Adenso-Diaz, Julio Mar-Ortiz and Sebastián Lozano. <i>Analysing the robustness of a supply network under links shutdown</i>	
16:00-16:15	Jen-Yen Lin and Ming-Jong Yao. <i>The joint replenishment problem with quantity discounts under power-of-two policies</i>	
16:15-16:30	Keiji Tatsumi, Toshimasa Matsuoka and Sadahiro Tani. <i>A software level calibration for a successive stochastic approximation analog-to-digital conversion system</i>	Battuvshin.Ch
16:30-16:45	Ming-Jong Yao and Tien-Cheng Hsu. <i>An Efficient Search Algorithm for Obtaining the Optimal Replenishment Strategies in Assembly-type Just-in-time Supply Chain Systems</i>	
16:45-17:00	Alexander Strelakovski, Maxim Yanulevich and Mariia Barkova. <i>Optimization approach for solving nonlinear equation systems: numerical method</i>	
17:00-17:15	Sai Ji, Dachuan Xu, Donglei Du and Yijing Wang. <i>Approximation algorithms for two-stage stochastic fault-tolerant facility location problem</i>	
17:15-17:30	Bayarbaatar Amgalan. <i>Identification of key players on cancer-activated multi-dimensional network</i>	

<b>18:00</b>	<b>Welcome reception</b>	<b>Ulaanbaatar Hotel</b>
--------------	--------------------------	--------------------------

<b>Session M3</b>	<b>Optimization and its Application</b>	
-----------------------	---	--

<b>3th Bld. of University of the Humanities</b>		
---	--	--

<b>Room 502, Floor-5</b>		
--------------------------	--	--

Time	Speaker and title	Chair
14:00-14:15	Gerhard-Wilhelm Weber, Emel Savku, Yeliz Yolcu Okur, Azar Karimov and Erdem Kilic. <i>Recent Advances of Optimization and Optimal Control to Economics and Finance</i>	
14:15-14:30	Xiaoqi Yang. <i>Subgradient methods for quasi-convex optimization problems</i>	
14:30-14:45	Ser-Od Bayaraa and Delgersaikhan Urtnasan. <i>Optimal decision making problem with fuzzy constraints</i>	
14:45-15:00	Adil Bagirov and Julien Ugon. <i>Unconstrained piecewise linear optimization: optimality conditions and numerical methods</i>	Hexi Baoyin
15:00-15:15	Batzul Tumur and Barsbold Bazarragchaa. <i>Reducibility of linear homogeneous system differential equations with semiperiodic coefficients</i>	
15:15-15:30	Masakazu Muramatsu, Bruno Lourenco and Takashi Tsuchiya. <i>Weak infeasibility, facial reduction, and duality in conic programming</i>	
15:30-15:45	Coffee Break	
15:45-16:00	Bastian Harrach and Mach Nguyet Minh. <i>Regularizing the optimization-based solution of inverse coefficient problems with monotonicity constraints</i>	
16:00-16:15	Jen-Yen Lin, Ming-Jong Yao and Yi-Hua Chu. <i>Solving the Optimal Resource Allocation in Multimodal Stochastic Activity Networks Using an Optimal Computing Budget Allocation Technique</i>	
16:15-16:30	Barsbold Bazarragchaa, Ariungerel Jargal and Yeruult Sandagsuren. <i>A Numerical Method for Solving Optimal Investment Problem in Non-life Insurance</i>	Bayarbaatar.A
16:30-16:45	Van Bong Nguyen and Ruey-Lin Sheu. <i>On Unboundedness of Quadratic Problems with Convex Quadratic Constraints</i>	
16:45-17:00	Yoshifumi Kusunoki. <i>Approximate solution for support vector machines maximizing the sum of geometric margins</i>	
17:00-17:15	Mingjie Gao and Cedric Yiu. <i>Optimization of sparse beamforming systems</i>	
<b>18:00</b>	<b>Welcome reception</b>	<b>Ulaanbaatar Hotel</b>

<b>Session M4</b>	<b>Stochastic and Dynamic Programming, Optimization</b>	
-----------------------	---	--

<b>3th Bld. of University of the Humanities</b>		
---	--	--

<b>Room 503, Floor-5</b>		
--------------------------	--	--

Time	Speaker and title	Chair
14:00-14:15	Wonny Choi, Jaechan Shim, Hoyong Ryu and Yutae Lee. <i>Queueing system with breakdowns and interrupted repairs</i>	

14:15-14:30	Raúl Rodríguez-Alarcón and Sebastián Lozano. <i>Self-Organizing Map of Reservoir Operations</i>	Nezam Mahdavi-Amiri
14:30-14:45	Richard Vogel. <i>Mathematics, Optimization, and the Skills necessary for Management Education</i>	
14:45-15:00	Zhanyou Ma, Xiaoming Zheng and Wuyi Yue. <i>Performance Analysis of Geo/Geo/c Queue with Priority Discipline and Multiple Vacations</i>	
15:00-15:15	Jiyuan Tao. <i>Some trace inequalities in Euclidean Jordan algebras</i>	
15:15-15:30	Huan Zhang and Lingchen Kong. <i>Fused-LASSO Penalized Least Absolute Deviation Estimator for High Dimensional Linear Regression</i>	
15:30-15:45	Coffee Break	
15:45-16:00	Yu-Ching Lee, Yi-Hao Huang and Si-Jheng Ciou. <i>Data analytics with optimal parameter estimation on Hadoop</i>	
16:00-16:15	Lichun Wang. <i>On Estimating Uniform Distribution via Linear Bayes Method</i>	
16:15-16:30	Yanyan Yin, Yanqing Liu, Kok Lay Teo and Fei Liu. <i>Probabilistic Robust Control of Linear Systems with Input Constrains</i>	
16:30-16:45	Lili Pan, Naihua Xiu and Jun Fan. <i>Optimality Conditions for Sparsity Nonlinear Programming</i>	
16:45-17:00	Nezam Mahdavi-Amiri and Effat Golpar-Raboky. <i>The Smith Normal Form Using General Biconjugation Processes</i>	Bayanjargal.D
17:00-17:15	Tumen Darmaev <i>A numerical analysis of the spectrum of plane-parallel flows</i>	
17:15-17:30	Mohamed Tawhid and Vimal Savsani. <i>Multi-objective water wave optimization (MO-WWO) algorithm for multi-objective engineering design problems</i>	
17:30-17:45	Erdenebaatar Chadraa. <i>Time series studies of air pollution and mortality</i>	
<b>18:00</b>	<b>Welcome reception</b>	<b>Ulaanbaatar Hotel</b>



**July 24, 2016 Sunday**

<b>Plenary Session</b>	<b>Best Western Premier Tuushin hotel, Soyombo Hall</b>		
<b>Time</b>	<b>Speaker and title</b>	<b>Chair</b>	
09:00-09:45	Alexander Strelakovsky.( Matroso Institute for System Dynamics and Control Theory of Siberian Branch of RAS, Russian Federation) <i>Global Search Theory for Nonconvex Optimization</i>		
09:45-10:30	Coffee Break		
10:30-11:15	Frank Lewis. (University of Texas at Arlington, United States ) <i>Reinforcement Learning Structures for Real-Time Optimal Control and Differential Games</i>	Tseveendorj. I	
11:15-12:00	Joydeep Dutta.( Indian Institute of Technology Kanpur, India) <i>Are equilibrium problems more general than variational inequalities?</i>		
<b>12:30-14:00</b>	<b>Lunch</b>	<b>Tuushin Hotel</b>	

<b>Session M1</b>	<b>Global Optimization and Optimal Control</b>		
<b>3th Bld. of University of the Humanities</b>			
<b>Room 401, Floor-4</b>			
<b>Time</b>	<b>Speaker and title</b>	<b>Chair</b>	
14:00-14:15	Alexander Arguchintsev and Vasilisa Poplevko. <i>Optimal control problem by parabolic equation with boundary smooth control function</i>		
14:15-14:30	Olga Samsonyuk. <i>Hamilton-Jacobi inequalities for impulsive control systems with trajectories of bounded variation and their applications to control problems</i>		
14:30-14:45	Yumei Liao, Wei Wei and Dongsheng Luo. <i>Optimal control problem on microwave heating packaged foods</i>	Andrei Orlov	
14:45-15:00	Elena Khoroshilova. <i>Saddle-point approach and extragradient method to solve dynamical terminal control problem</i>		
15:00-15:15	Anatoly Antipin. <i>Saddle-Point Methods with Phase Constraints and Boundary Value Problems in Terminal Controls</i>		
15:15-15:30	Ider Tseveendorj and Dominique Fortin. <i>Interior Ball Method for Piecewise Convex Maximization Problems</i>		
15:30-15:45	Coffee Break		
15:45-16:00	Ishin-Khorlo Khishektueva and Alexander Buldaev. <i>On one approach to modeling and optimization of the dynamics of the nuclear reactor.</i>		
16:00-16:15	Gaoxi Li, Zhongping Wan, Jia-Wei Chen and Xiaoke Zhao. <i>Optimality conditions for trilevel optimization problem</i>		
16:15-16:30	Maxim Staritsyn and Stepan Sorokin. <i>Synthesis of impulsive control and impulsive feedback maximum principle</i>		
16:30-16:45	Diego Ruiz-Hernandez, Mozart B.C. Menezes, Kai Luo and Oihab Allal-Cherif. <i>Entering a new market: the effect of short lifecycles on supply chain design</i>	Tatiana Gruzdeva	
16:45-17:00	Ekaterina Dryganova. <i>The projective method of nonlocal improvement in the discrete control systems</i>		

17:00-17:15	Byungjoon Lee, Stanley Osher, Jerome Darbon and Myungjoo Kang <i>Revisit on reinitialization problem using Hopf-Lax formula</i>
17:15-17:30	Bayartugs Tamjav and Munkhdalai Dorj. <i>A Numerical Method for Quasiconvex Maximization</i>

**Session M2 Application of Mathematical Modeling and Optimization Theory and Methods in Various Areas**

**3th Bld. of University of the Humanities**

**Room 501, Floor-5**

Time	Speaker and title	Chair
14:00-14:15	Zhining Lim, Jinho Choi and Cheng-Chew Lim. <i>Modelling Network Layer Malicious Activity in Wireless Sensor Networks</i>	
14:15-14:30	Yanjun Jiang and Dachuan Xu. <i>An approximation algorithm for the dynamic facility location problem with outliers</i>	
14:30-14:45	Igor Vasilyev, Xenia Klimentova and Anton Ushakov. <i>Competitive facility location model with attractiveness variables</i>	
14:45-15:00	Aleksander Gornov, Anton Anikin, Evgeniya Finkelstein and Tatiana Zarodnyuk. <i>Computational technologies for solving huge optimization problems</i>	Richard Vogel
15:00-15:15	Hiroaki Inokuchi and Takamasa Akiyama. <i>The disaster debris transport problem with network equilibrium constraints</i>	
15:15-15:30	Lu Han, Dachuan Xu, Donglei Du and Chenchen Wu. <i>An approximation algorithm for the k-MST problem with linear penalties</i>	
15:30-15:45	Coffee Break	
15:45-16:00	Munkherdene Tsagaan <i>Electrical Impedance Imaging and its application in Mongolia</i>	
16:00-16:15	Chenchen Wu and Dachuan Xu. <i>Approximation algorithm for the priority multi-level facility location problem</i>	
16:15-16:30	Mingwei Yin, Jingyang Li and Hexi Baoyin. <i>Rapid Algorithm for Time-Optimal Reorientation of Agile Satellite</i>	
16:30-16:45	Shunfu Jin and Wuyi Yue. <i>Performance Estimation and System Optimization of a Hybrid Energy Saving Control Method in the Energy-Efficient Ethernet</i>	
16:45-17:00	Shengze Cai, Yongbin Huang, Bo Ye and Chao Xu. <i>Dynamic Illumination Optical Flow Computing for Sensing Multiple Mobile Robots from a Drone</i>	Napsu Karmitsa
17:00-17:15	Zhilin Kang and Zhongfei Li. <i>Data-driven robust mean-CVaR portfolio selection under distribution ambiguity</i>	
17:15-17:30	Gankhuu Battulga and Lkhamsuren Altangerel. <i>An extension of the one-period model in non-life insurance markets</i>	
17:30-17:45	Cheng Jiang, Zhonghua Liu, Juyun Wang, Hua Yu and Xiaoling Guo <i>An optimal approach for the critical node problem using semidefinite programming</i>	
17:45-18:00	Batbileg Sukhee, Anton Anikin and Evgeniya Finkelstein <i>Global Optimization Approach to Game Theory</i>	

Time	Speaker and title	Chair
14:00-14:15	Milagros R. Baldemor. <i>Efficiency of local government units in northwestern philippines as to the attainment of the millenium development goals</i>	
14:15-14:30	Darkhijav Bayanjargal and Batsukh Davaasuren. <i>An Optimization Approach to Consumer Lifetime Valuation Model</i>	
14:30-14:45	Changchun Bao and Hexi Baoyin. <i>Near-Earth Asteroid Capturing Orbit Design with Low Thrust Optimization Method</i>	Gerhard-Wilhelm Weber
14:45-15:00	Mariia Barkova, Rentsen Enkhbat and Tatiana Gruzdeva. <i>D.C. programming approach for solving an optimization problem at ore-dressing plant</i>	
15:00-15:15	Changzhi Wu. <i>Sparse optimal feedback gains via <math>L_0</math> norm minimization with Moreau envelope approach</i>	
15:15-15:30	Tatiana Gruzdeva and Rentsen Enkhbat. <i>One approach to solving an applied ore-processing problem via d.c. optimization</i>	
15:30-15:45	Coffee Break	
15:45-16:00	Hong Seng Sim, Wah June Leong, Chuei Yee Chen and Siti Nur Iqmal Ibrahim. <i>Spectral Gradient Method via Variational Technique under Log-Determinant Norm</i>	
16:00-16:15	Artem Baklanov, Pavel Chentsov, Alexandr Gornov and Tatiana Zarodnyuk. <i>A heuristic approach for the traveling salesman problem of special type</i>	
16:15-16:30	Jianping Liu, Shunfu Jin and Wuyi Yue. <i>Performance Optimization for an Energy Conservation Strategy with Multi-Sleep Mode in Green Cognitive Radio Network</i>	Song Wang
16:30-16:45	Zagdkhorol Bayasgalan and Tsetsgee Bayasgalan <i>Optimal load distribution and frequency regulation in power system</i>	
16:45-17:00	Song Wang. <i>An interior penalty method for a finite-dimensional nonlinear double obstacle problem in financial engineering</i>	
17:00-17:15	Shenbao Yu, Bilian Chen and Jing Tang. <i>Dilemma of Personal POI Recommendation in Location-based Social Networks</i>	
17:15-17:30	Ma Xinshun. <i>One recourse-based stochastic quadratic programming with linear partial information on probability distribution and its L-shaped algorithm</i>	
17:30-17:45	Mohamed Tawhid and Vimal Savsani. <i>Multi-objective water wave optimization (MO-WWO) algorithm for multi-objective engineering design problems</i>	
17:45-18:00	Xia Li and Peifeng Niu. <i>Self-study Teaching-Learning-Based Optimization Algorithm by Adaptive Mutation for Modeling NOX Emission of the Boiler</i>	

**Poster session**

<b>Time</b>	<b>Speaker and title</b>
14:30-15:30	Enkhbat Rentsen, Mohammed Bellalij, Khalid Jbilou and Bayartugs Tamjav. <i>Semidefinite Quasiconvex Programming</i>
14:30-15:30	Davaadulam Jamsranjav and Budnyam Sanjaa. <i>Mathematical models of knowledge economy</i>
14:30-15:30	Ankhubayar Chuluunbaatar and Tungalag Natsagdorj. <i>Mathematical Model for Consumer Loan Risk</i>
14:30-15:30	Amarsanaa Luvsandagva and Otgonnaran Ochirbat. <i>Arranging a subject topics in correct order with network graph</i>
14:30-15:30	Erdenebat Munkhdalai and Tungalag Natsagdorj. <i>A Variational Calculus approach to Inventory Management in Business</i>
14:30-15:30	Tsolmon Sodnomdavaa and Molomjamts Dorjkhand. <i>Bankruptcy prediction models: artificial neural networks versus discriminant analysis and logit model</i>
14:30-15:30	Enkhubayar Jamsranjav. <i>A theory and method for solving maxmin problems in Microeconomics.</i>
14:30-15:30	Oyuntsetseg Luvsandash, Ankhubayar Jamsranjav and Tungalag Natsagdorj. <i>ExLog Weighted Sum Model for Long term Forecasting</i>
14:30-15:30	Naranchimeg Chimedravdan and Davaasuren Chuluunbaatar. <i>Some problems of optimal planning budget of Mongolia</i>
15:30-16:30	Battuvshin Chuluundorj and Binderiya Enkhbat. <i>A Diet Planning Optimization Model</i>
15:30-16:30	Makhgal Ganbold and Bayarbaatar Amgalan. <i>Partial Correlation Based Graph Estimation on Gene Expression Profile</i>
15:30-16:30	Altan-Ulzii Chuluun <i>Dynamic Stochastic General Equilibrium (DSGE) Model with Banking Sector and Housing Market</i>
15:30-16:30	Badam Ulemj and Ankhubayar Gelegbadam. <i>A Mathematical Modeling for Determining Normal Rate of Desertification.</i>
15:30-16:30	Bilguun Sukhbaatar, Batsukh Tserendorj and Oyu-Erdene Buyandelger. <i>Exchange rate pass-through effect analysis in case of Mongolia: Small open economy DSGE model</i>
15:30-16:30	Tugal Zhanlav, Renchin-Ochir Mijiddorj. <i>Numerical solution of reaction-diffusion system</i>
15:30-16:30	Jambaa Soninbayar. <i>Some basic properties and simple examples in the theory of dynamical systems.</i>
15:30-16:30	O.Tuley, A.Batsengel, D.Tsoodol. <i>Key Sectors analyses of the Mongolian Economy by using Input-output table</i>

July 25, 2016 Monday

<b>Session M1</b>	<b>Global Optimization and Optimal Control</b>	
	<b>3th Bld. of University of the Humanities</b>	
	<b>Room 401, Floor-4</b>	
	<b>Time</b>	<b>Speaker and title</b>
		<b>Chair</b>
	09:00-09:15	Nobusumi Sagara and Boris S. Mordukhovich. <i>Subdifferentials of nonconvex integral functionals in Banach spaces with applications to stochastic dynamic programming</i>
	09:15-09:30	Myeongmin Kang, Myungjoo Kang and Miyoun Jung. <i>Inexact and accelerated version of augmented Lagrangian method for L1-L2 minimization with linear constraints</i>

**Countryside trip to “XIII Century”**

<b>Departure time</b>	<b>Depart from</b>
10:00	In front of the main building of National University of Mongolia