

**The 7th International Conference on Optimization,  
Simulation and Control**

# **PROGRAM**

*June 20-22, 2022  
Ulaanbaatar, Mongolia*

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Mongolian Academy of Sciences

National University of Mongolia

German-Mongolian Institute for Resources and Technology

University of the Humanities, Mongolia

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## PROGRAM

<b>June 20, 2022 Monday</b>		
08:30-09:00	Library Building, National University of Mongolia 5 <sup>th</sup> floor	Registration
09:00-09:30	<b>Opening Ceremony</b>	
09:30-09:50	Coffee Break	
Time	Plenary Speaker and title	Chair
09:50-10:30	<b>Panos M. Pardalos</b> / <i>University of Florida, USA/</i> Computational approaches for solving systems of nonlinear equations	Altannar Chinchuluun
10:30-11:10	<b>A.S. Strekalovsky</b> / <i>Matrosov Institute for system dynamics and control theory of SB RAS, Russia/</i> New principles of non-convex optimization	
11:10-11:50	<b>Hexi Baoyin, Bin Cheng</b> / <i>Tsinghua University, China/</i> Formation, evolution and exploration of asteroids: simulation of mass granular system behaviors	
<b>Session: Optimization, Control and Simulation</b>		
Time	Speaker and title	Chair
11:50-12:10	Wejdan Alrashdan / <i>Jouf University, Saudi Arabia/</i> and <b>Amr Radwan</b> / <i>Sohag University, Egypt/</i> Storage reduction of forward-backward sweeping method of optimal control of active queue management	D.Bayanjargal
12:10-12:30	<b>Saheya B</b> / <i>Inner Mongolia Normal University, China/</i> Neural network for solving system of inequalities based on systematically generated smoothing functions	
12:30-14:00	POSTER SESSION 1 and BOX LUNCH	
<b>Session Optimization, Control and Simulation</b>		
Time	Speaker and title	Chair
14:00-14:15	<b>Bataa Lkhagvasuren</b> / <i>Chonnam National University, South Korea/</i> Operator learning based on harmonic analysis for geophysical fluid dynamics problems	T.V. Gruzdeva
14:15-14:30	<b>Andrei Orlov</b> / <i>Matrosov Institute for system dynamics and control theory of SB RAS, Russia/</i> Hybrid genetic global search algorithm for seeking Nash equilibria in three-person polymatrix games	
14:30-14:45	Battur Gompil, <b>Batbileg Sukhee</b> / <i>National University of Mongolia/</i> DC approach to quadratic nonconvex generalized Nash equilibrium problems	

14:45-15:00	<b>Sodjamts Enkhbat</b> , Uganbaatar Dulamragchaa, Khajidmaa Battumur, Lkhagvasuren Altankhuyag, / <i>Mongolian Academy of Sciences/</i> Mongolian Khalkh speech recognition	T.V. Gruzdeva
<b>Time</b>	<b>Plenary Speaker and title</b>	
15:00-15:40	<b>Radu Ioan Bot</b> / <i>University of Vienna, Austria/</i> Fast augmented Lagrangian method in continuous and discrete time	
15:40-16:00	Coffee break	
16:00-16:15	<b>Ashwin Arulsevan</b> / <i>University of Strathclyde, UK/</i> Algorithms for subsidy allocation problem	L.Altangerel
16:15-16:30	<b>Dagiimaa Balaanz</b> / <i>University of the Humanities, Mongolia/</i> Measuring discourse perspective with text network algorithms	
16:30-16:45	<b>Tatiana Gruzdeva</b> , Anton Ushakov / <i>Matrosov Institute for System Dynamics and Control Theory, Siberian Branch of Russian Academy of Sciences/</i> On an approach to solving clustering problem with Bregman divergences	
16:45-17:00	<b>Mend-Amar Majig</b> / <i>National University of Mongolia/</i> and Ganchimeg Jamsran / <i>Mongolian University of Science and Technology/</i> Origin-destination matrix estimation using pattern recognition in public transport smart card data of Ulaanbaatar city	
17:00-17:15	Davaasuren Bayarmagnai, <b>Bayanjargal Darkhijav</b> , Tsolmon Renchin / <i>National University of Mongolia/</i> Land cover classification using linear mixing model and random forest algorithm	
17:15-17:30	<b>Sanjaa Budnyam</b> / <i>Graduate University of Mongolia/</i> Development of applied mathematics in XXI century	L.Altangerel
17:30-17:45	<b>Ankhubayar Chuluunbaatar</b> , Burmaa Galaa / <i>National University of Mongolia/</i> Application of sphere packing theory in financial management	
18:00-20:00	Welcome reception UB GRAND HOTEL 17 <sup>th</sup> floor	

<b>June 21, 2022 Tuesday</b>		
<b>Time</b>	<b>Plenary Speaker and title</b>	<b>Chair</b>
08:30-09:00	<b>Sergiy Butenko</b> , Mykyta Makovenko and Akis Pardalos / <i>Texas AM University</i> / Cluster detection via polynomial optimization	A.Orlov
09:00-09:30	<b>Biswa Nath Datta</b> / <i>Northern Illinois University, USA</i> / and Biswajit Sahoo / <i>HP PPS, Bengaluru, India</i> / Machine learning with regression, classification and optimization	
<b>Time</b>	<b>Invited Speaker and title</b>	
09:30-09:50	<b>Petros Xanthopoulos</b> / <i>Stetson University, USA</i> /, Orestis P. Panagopoulos / <i>California State University, USA</i> /, Onur Seref / <i>Virginia Polytechnic Institute and State University, USA</i> / One class relaxed support vector machine for novelty detection	
09:50-10:10	<b>Richard Vogel</b> / <i>Farmingdale State College - SUNY, USA</i> / Optimization and profitability: coastal nitrogen bioremediation	
10:10-10:30	Coffee Break	

<b>Session: Optimization, Control and Simulation</b>		
<b>Time</b>	<b>Invited speaker and title</b>	<b>Chair</b>
10:30-10:50	<b>Gantumur Tsogtgerel</b> / <i>McGill University, Canada</i> / Finite element exterior calculus and optimal control	B.Barsbold
10:50-11:10	<b>Neng Fan</b> / <i>University of Arizona, USA</i> / Sustainable operations of energy-intensive productions with onsite renewables	
<b>Time</b>	<b>Speaker and title</b>	<b>Chair</b>
11:10-11:25	Aleksander Gornov, <b>Tatiana Zarodnyuk</b> , Anton Anikin, Pavel Sorokovikov <i>/Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia/</i> Applied non-convex optimization problems and their classification	E.Sodjamts
11:25-11:40	<b>Lkhamsuren Altangerel</b> / <i>German-Mongolian Institute for Resources and Technology/</i> Tseng's numerical scheme for solving quasi-variational inequalities	
11:40-11:55	Alexander Strekalovskiy, <b>Maria Barkova</b> <i>/Matrosov Institute for System Dynamics &amp; Control Theory SB RAS, Russia/</i> On solving the optimization problem with dc inequality constraints	E.Sodjamts
11:55-12:10	<b>Ya. Lutbat</b> , V. Ulziibayar / <i>Mongolian University of Science and Technology/</i> , R. Enkhbat <i>/National University of Mongolia, Mongolian Academy of Sciences/</i> Inverse linear parametric programming	
12:10-12:25	Byambaa Bayarmandakh / <i>National University of Mongolia/</i> , Ashwin Arulselvan / <i>University of Strathclyde, UK/</i> and <b>Altannar Chinchuluun</b> , / <i>National University of Mongolia/</i> Information propagation models in networks	
12:25-12:40	<b>Tseveennamjil Damiran</b> / <i>Mongolian University of Life Sciences/</i> Matrix integral of Hermite-Weber function and quantum painlev's equation	
12:40-14:00	POSTER SESSION II and BOX LUNCH	



<b>Session Optimization, Control and Simulation</b>		
<b>Time</b>	<b>Invited speaker and title</b>	<b>Chair</b>
14:00-14:20	<b>Milagros R. Baldemor</b> / <i>Memorial State University, Philippines/</i> Efficiency of local government units in northwestern Philippines as to the attainment of the millennium development goals	B.Otgonsuvd
14:20-14:40	<b>Sheng Bau</b> / <i>University of Kwazulu Natal, South Africa/</i> Dimensions of metric spaces over vector groups	
14:40-15:00	<b>Ider Tseveendorj</b> / <i>Laboratory of Mathematics of Versailles Universite, France/</i> Use of HT-differentials for global optimality	
<b>Time</b>	<b>Speaker and title</b>	
15:00-15:15	<b>Munkhtuya Dooliokhuu</b> / <i>Mongolian University of Life Sciences/</i> , Atsushi Ito / <i>Chuo University, Japan/</i> , Ariunbold Turtogtokh / <i>Mongolian University of Life Sciences/</i> , Shiori Ashibe, Yoshikazu Nagao / <i>Utsunomiya University, Japan/</i> Designing information sharing platform using IOT and AI for farming management system (FMS)	Ch.Naranchimeg
15:15-15:30	<b>Baljinnyam Sereeter</b> / <i>Software Engineer at TJIP, Delft, The Netherlands/</i> Optimal power flow formulations and their impacts on the performance of solution methods	
15:30-15:45	<b>Zagdkhorol Bayasgalan</b> , Tsetsgee Bayasgalan, UranchimegTudevdagva / <i>Mongolian University of Science and Technology/</i> , Wolfram Hardt, / <i>Chemnitz University, Germany/</i> Dispatching control using unit commitment model	
15:45-16:05	Coffee Break	
16:05-16:20	<b>Bazarragchaa Barsbold</b> , Balkhuu Batbayasgalan, / <i>National University of Mongolia/</i> , Dorjkhoo Enkhtaivan / <i>Alfa Agula LLC, Mongolia/</i> , Dovdon Batsuuri / <i>University of the Humanities, Mongolia/</i> A sequential approach to a minimum norm partial pole assignment problem	Milagros R. Baldemor

16:20-16:35	<b>Naranchimeg Chimedravdan</b> and Davaasuren Chuluunbaatar / <i>Mongolian University of Finance and Economics/</i> The impact of budget deficit for macroeconomic in Mongolia	Milagros R. Baldemor
16:35-16:50	Zhanlav Tugal / <i>Mongolian Academy of Sciences /</i> <b>Mijiddorj Renchin-Ochir</b> / <i>Mongolian National University of Education/</i> , Otgondorj Khuder, / <i>Mongolian University of Science and Technology/</i> An efficient numerical approach for solving Bratu's problem	
16:50-17:05	Adiyanyam Damchaa, <b>Azjargal Enkhbayar</b> , Buyantogtokh Lkhagva / <i>Mongolian National University of Education/</i> Spectral properties of stepwise irregular graphs	
17:05-17:20	<b>Dorj Ichikawa</b> , Noppawan Tamkuan, Vaibhav Katiyar and Masahiko Nagai / <i>Yamaguchi University, Japan/</i> Hybrid vicarious calibration of multi-satellite imageries for optimal integration and harmonization	
17:20-17:35	<b>D. Tsendenbayar</b> / <i>Mongolian University of Science and Technology/</i> and L. Khadkhuu / <i>National University of Mongolia/</i> On the Volterra operator	
17:35-17:50	Mikhail Bulatov, <b>Ekaterina Antipina</b> , Vitaly Biryukov / <i>Melentiev Energy Systems Institute of Siberian Branch of the Russian Academy of Sciences, Russia/</i> Block methods for the numerical solution of the volterra integral equation of the first kind	
17:50-18:05	<b>Rentsen Enkhbat</b> / <i>Mongolian Academy of Sciences/</i> Optimal control sphere packing problem	
18:05-18:20	<b>Saruultugs Natsagdorj</b> / <i>National University of Mongolia/</i> Using quantitative methods in measuring human capital companies	

#	<p style="text-align: center;"><b>POSTER SESSION I</b>  Library Building, NUM 5th floor  2022-06-20  Time 12:30-14:00</p>
1	<p><b>ACCURACY ASSESSMENT ANALYSIS OF ORTHOMOSAIC AND DSM GENERATED FROM SENSOR ABOARD UAV</b>  E.Jargaldalai<sup>1</sup>, A.Munkh-Erdene<sup>2</sup>, D.Amarsaikhan<sup>1</sup>, Martin Oczipka<sup>3</sup>  <sup>1</sup> Mongolian Academy of Sciences  <sup>2</sup> Hochschule für Technik und Wirtschaft Dresden</p>
2	<p><b>AN APPLICATION OF MACHINE LEARNING MODELS FOR TAX RISK ASSESSMENT</b>  Davaa Bayarjargal<sup>1</sup> and Bayanjargal Darkhijav<sup>2</sup>  <sup>1</sup> Risk management department, Mongolian tax administration  <sup>2</sup> National University of Mongolia</p>
3	<p><b>OPTIMIZATION STOCK PORTFOLIO WITH MEAN-VARIANCE AND LINEAR PROGRAMMING: CASE IN MONGOLIAN STOCK MARKET</b>  Naranchimeg Chimedravdan and Eldev-Ochir Enkhjargal  Mongolian University of Finance and Economics</p>
4	<p><b>ON MEASUREMENT OF MATHEMATICAL EDUCATION PERFORMANCE OF MONGOLIAN SECONDARY SCHOOLS</b>  U.Badam, Ts.Otgonchimeg  Ulaanbaatar University, Mongolia</p>
5	<p><b>THE IMPACT OF GLOBAL SHOCKS ON THE MONGOLIAN ECONOMY USING TVP-FAVAR MODEL</b>  Batsuuri Dovdon, Byambasuren Lkhagvadorj  University of the Humanities, Mongolia</p>
6	<p><b>APPLICATION OF CESARO OPERATOR IN ECONOMICS</b>  T.Bayartugs<sup>1</sup>, D.Tsedenbayar<sup>1</sup>, J.Davaadulam<sup>2</sup>  <sup>1</sup> Mongolian University of Science and Technology  <sup>2</sup> National University of Mongolia</p>
7	<p><b>MACHINE LEARNING APPROACHES FOR TROPOSPHERE DELAYS</b>  Bulgan Gankhuyag, Amarjargal Sharav, Nergui Baasan  Mongolian Academy of Sciences</p>
8	<p><b>SOLVING JAPANESE SANGAKU PROBLEM BY A GLOBAL OPTIMIZATION METHOD</b>  E.Enkhtsolmon<sup>1</sup>, M.Kamada<sup>2</sup> and R.Enkhbat<sup>1</sup>  <sup>1</sup> Mongolian Academy of Sciences  <sup>2</sup> Ibaraki University, Japan</p>
9	<p><b>OPTIMAL PORTFOLIO SELECTION OF CURRENCIES</b>  G. Gantigmaa, J.Davaajargal  Mongolian Academy of Sciences</p>
10	<p><b>FRACTIONAL MAXIMIZATION PROBLEM</b>  Iderbayar Shiilegbat  Mongolian Academy of Sciences</p>

11	<b>RESILIENCE-PERFORMANCE TRADE-OFFS IN MANAGING SOCIAL-ECOLOGICAL SYSTEMS</b> Tsogkhuu Jargalsaikhan Mongolian University of Science and Technology
12	<b>CONNECTION BETWEEN SYNCHRONICITY OF FUNCTION AND QUADRATIC FORMS</b> L. D. Shankishvili Georgian Technical University, Tbilisi, Georgia
13	<b>EXLOG WEIGHTED SUM MODEL FOR LONG TERM FORECASTING</b> Oyuntsetseg Luvsandash, Tungalag Natsagdorj National University of Mongolia
14	<b>CORRELATION BETWEEN CHINESE ECONOMY AND RUSSIAN-UKRAINIAN CRISIS: USING KNOWLEDGE OPTIMIZATION ALGORITHMS</b> Sereeter Oyundelger University of the Humanities, Mongolia
15	<b>EXTENDING NONSTANDARD FINITE DIFFERENCE SCHEME FOR THE SIR EPIDEMIC MODEL</b> Sh. Enkh-Amar, B. Batgerel Mongolian Academy of Sciences
16	<b>MENTAL SPACE AND SEMANTIC FRAME” WITH “LANGUAGE-MATHEMATICAL” MODELS</b> Enkhtuya Navaansuren Humanities University of Mongolia
17	<b>NON-DESTRUCTIVE TESTING METHOD TO DETECT UNDERGROUND GOLD USING EIT</b> S.Uranchimeg Mongolian University of Science and Technology
18	<b>ESTIMATING AND FORECASTING VOLATILITY INDEX (VIX) WITH CONTINUOUS-TIME GARCH PROCESSES</b> Erdene Chadraa College of William & Mary, United States
19	<b>ON THE MAXIMIZATIONS BICONVEX FUNCTIONS</b> Enkhbayar Jamsranjav National University of Mongolia
20	<b>ON A PROBLEM OF OPTIMAL CONTROL OF THE VIBRATION OF A ROD CONSISTING OF TWO NON-HOMOGENOUS SEGMENTS WITH A RESTRICTION AT AN INTERMEDIATE TIME</b> Vanya Barseghyan <sup>1</sup> , Svetlana Solodusha <sup>2</sup> <sup>1</sup> Institute of Mechanics National Academy of Sciences of Armenia, Yerevan State University, Armenia <sup>2</sup> Institute of Siberian Branch of the Russian Academy of Sciences, Melentiev Energy Systems, Russia

21	<p><b>A STUDY TO DETERMINE THE FACIAL ANTHROPOMETRIC MEASUREMENTS OF MONGOLIAN PEOPLE</b>  Bat-Enkh Oyunbileg<sup>1</sup>, Uuganbaatar Dulamragcha<sup>2</sup>, Khajidmaa Battumur<sup>2</sup> ,  Davaasuren Nyamdavaa<sup>2</sup> , Battulga Ulziisaikhan<sup>2</sup>  <sup>1</sup> Mongolian University of Science and Technology  <sup>2</sup> Mongolian Academy of Sciences</p>
22	<p><b>MACHINE LEARNING ALGORITHM FOR SOLUTION OF BRATU DIFFERENTIAL EQUATIONS</b>  B. Tumurkhuyag, B. Batgerel  Mongolian Academy of Sciences</p>
23	<p><b>RUSSIAN BANK'S EXPULSION FROM SWIFT SYSTEM AFFECTS AN INTERNATIONAL REMITTANCE THROUGH MONGOLIAN BANKS</b>  Bolormaa Budjav  National University of Mongolia</p>
24	<p><b>3D INPUT GENERATION FROM 6-DOF TRACKERS</b>  Tserennadmid Tumurbaatar, Dultuya Terbish, Enkhbolor Adiya  National University of Mongolia</p>
25	<p><b>RECOGNITION OF PAINTINGS USING COLOR DATA</b>  Otgonsuvd Badrakh<sup>1</sup>, Lodoiravsal Choimaa<sup>2</sup>, Nergui Baasan<sup>1</sup>  <sup>1</sup> Mongolian Academy of Sciences  <sup>2</sup> National University of Mongolia</p>
26	<p><b>OPTIMIZATION APPROACH TO ASSET AND CAPITAL STRUCTURE OF COMPANIES</b>  Erdenebat Munkhdalai, Enkhbayar Jamsranjav  National University of Mongolia</p>
27	<p><b>DEVELOPMENT OF 6-AXIS ROBOTIC ARM CONTROL MODEL USING LEAP MOTION SENSOR</b>  Amartuvshin Renchin-Ochir, Khuslen Gansukh, Sumiyakhand Dagdanpurev  National University of Mongolia, Mongolia</p>
28	<p><b>OPTIMIZATION IN SOFTWARE ENGINEERING</b>  Amarsanaa Luvsandagva, Munkhpurev Shagdarsuren  Mongolian University of Life sciences, Mongolia</p>

#	<p style="text-align: center;"><b>POSTER SESSION II</b>  Library Building, NUM 5th floor  2022-06-21  Time 12:30-14:00</p>
1	<p><b>HOMOGENEOUS FRACTIONAL PROGRAMMING</b>  Maxim Demenkov  Institute of Control Sciences, Russia</p>
2	<p><b>OPTIMAL ADVERTISING EXPENDITURE</b>  Justin Abeles, Worku Bitew, Michael Tratamella, Richard Vogel  Farmingdale State College - SUNY, United States</p>
3	<p><b>ABOUT ONE METHOD OF NONLOCAL IMPROVEMENT OF CONTROL IN SYSTEMS WITH CONSTRAINTS</b>  Dmitry Trunin  Buryat State University, Russia</p>
4	<p><b>RESULT OF THE TAU-TRANSFORMATION USING MONTE CARLO METHOD: AN APPLICATION FOR A POLE-DIPOLE TDIP DATASET MEASURED IN GEOENGINEERING ISSUES</b>  Byambasuren Turtogtokh<sup>1</sup>, Endre Turai<sup>2</sup>  <sup>1</sup>Mongolian University of Science and Technology, Mongolia  <sup>2</sup> University of Miskolc, Hungary, Hungary</p>
5	<p><b>OPTIMAL ENSEMBLE CONTROL OF THETA NEURONS</b>  Nikolay Pogodaev, Maxim Staritsyn  Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia</p>
6	<p><b>DETECTS AN ORGANIZATION'S NETWORK ROUTER BEING VULNERABLE TO ATTACK</b>  Munkhjargal Bayarjargal, Byambadorj Dondogmegd, Densmaa Batbayar  Ulaanbaatar State University, Mongolia</p>
7	<p><b>METHODS FOR SEARCHING TO EXTREMAL CONTROLS BASED ON FIXED POINT PROBLEMS</b>  Aleksandr Buldaev, Ivan Kazmin  Buryat State University, Russia</p>
8	<p><b>NON-LINEAR OPTIMIZATION MODEL FOR SMALL BUSINESS ENTERPRISES LOANS</b>  Bolitogtokh Demberel, Dashpil Yanjiv  University of Finance and Economics, Mongolia</p>
9	<p><b>USING NEURAL NETWORK TIMES SERIES FORECASTING IN CASE CRIME</b>  Enkhbayar Jamsranjav<sup>1</sup>, Dagvasuren Ganbold<sup>2</sup>  <sup>1</sup> National University of Mongolia, Mongolia  <sup>2</sup> University of Finance and Economics</p>
10	<p><b>ESTIMATION OF FOREST ABOVEGROUND CARBON STORAGE USING SATELLITE DATA AND STEPWISE REGRESSION</b>  Delgermaa Erkhemjargal, Bayanjargal Darkhijav, Tsolmon Renchin  National University of Mongolia, Mongolia</p>
11	<p><b>MATHEMATICAL MODEL OF VEGETATION COVER CHANGE IN OGII LAKE BASIN</b>  Tamjav Bayartugs, Damdinsuren Nomindari, Sanjaa Tuya  Mongolian University of Science and Technology</p>

12	<p><b>ADOPTION OF ARTIFICIAL INTELLIGENCE IN BANKING SECTOR: EVIDENCE FROM MONGOLIA</b></p> <p>Oyundari Byambaa, Chimedtsogzol Yondon, Bayanjargal Darkhijav National University of Mongolia, Mongolia</p>
13	<p><b>BLOCK METHODS FOR THE NUMERICAL SOLUTION OF THE VOLTERRA INTEGRAL EQUATION OF THE FIRST KIND</b></p> <p>Mikhail Bulatov<sup>1</sup>, Ekaterina Antipina<sup>2</sup>, Vitaly Biryukov<sup>3</sup> <sup>1</sup>Matrosov Institute for System Dynamics and Control Theory of Siberian Branch of Russian Academy of Sciences, Russia <sup>2</sup>Melentiev Energy Systems Institute of Siberian Branch of the Russian Academy of Sciences, Russia <sup>3</sup>Irkutsk State University, Russia</p>
14	<p><b>ON THE MINIMIZATION PROBLEM OF THE SUM OF RATIO</b></p> <p>Davaajargal Jargalsaikhan<sup>1</sup>, Bayanjargal Darhijav<sup>2</sup>, Iderbayar Shiilegbat<sup>2</sup> <sup>1</sup> Mongolian Academy of Sciences <sup>2</sup> National University of Mongolia</p>
15	<p><b>IDENTIFICATION OF QUADRATIC VOLTERRA POLYNOMIALS USING PIECEWISE LINEAR TEST SIGNALS</b></p> <p>Svetlana Solodusha Melentiev Energy Systems Institute of Siberian Branch of the Russian Academy of Sciences, Russia</p>
16	<p><b>ESTIMATION OF DISTRIBUTION FOR LIVING TIME FOR CENSORED DATA</b></p> <p>Tserenbat Oirov<sup>1</sup>, Gereltuya Terbish<sup>2</sup>, Narangoo Ganbaatar<sup>1</sup> <sup>1</sup> National University of Mongolia <sup>2</sup> Mongolian University of Science and Technology</p>
17	<p><b>STOCHASTIC OPTIMAL CONTROL PROBLEM OF CONSUMPTION AND PENSION INSURANCE PURCHASE WITH UNCERTAIN LIFETIME</b></p> <p>Batsukh Tserendorj<sup>1</sup>, Tserenbat Oirov<sup>2</sup>, Gereltuya Terbish<sup>3</sup>, Nyamsuren Dorj<sup>3</sup> <sup>1</sup>University of Finance and Economics, Mongolia <sup>2</sup>National University of Mongolia <sup>3</sup>Mongolian University of Science and Technology</p>
18	<p><b>CONFORMAL MAPPING USING THE CHRISTOFFEL-SCHWARTZ INTEGRAL, TRANSFORMATIONS AND APPLICATIONS</b></p> <p>Soninbayar Jambaa National University of Mongolia, Mongolia</p>
19	<p><b>DETECTION OF FACIAL DEFORMITIES FROM FACIAL X-RAYS WITH DEEP LEARNING</b></p> <p>Sukhbat Sereeter, Mend-Amar Majig National University of Mongolia, Mongolia</p>
20	<p><b>DEVELOPMENT OF FACIAL RECOGNITION SYSTEM OF MONGOLIAN PEOPLE</b></p> <p>Bat-Enkh Oyunbileg<sup>1</sup>, Uuganbaatar Dulamragchaa<sup>2</sup>, Khajidmaa Battumur<sup>2</sup>, Davaasuren Nyamdavaa<sup>2</sup>, Battulga Ulziisaikhan<sup>2</sup> <sup>1</sup> Mongolian University of Science and Technology <sup>2</sup> Mongolian Academy of Sciences</p>

21	<b>PREDICTING THE INCIDENCE OF TUBERCULOSIS IN MONGOLIA USING NON-TRADITIONAL TIME SERIES MODELS</b> Gankhulug Erdembileg, Batgerel Balt Mongolian Academy of Sciences
22	<b>DENSITY ESTIMATION FOR AI</b> Ser-Od Bayaraa Mongolian University of Science and Technology
23	<b>COMPARING RESULTS OF NEURAL NETWORK MODELS IN QUADCOPTER CONTROL</b> Bat-Erdene Gotov <sup>1</sup> , Tengis Tserendondog <sup>2</sup> , Lodoiravsal Choimaa <sup>3</sup> , Batmunkh Amar <sup>2</sup> <sup>1</sup> Mongolian National University of Medical Sciences <sup>2</sup> Mongolian University of Science and Technology <sup>3</sup> The National University of Mongolia
24	<b>DEEP LEARNING-BASED INTERPRETABLE CLASSIFICATION MODEL FOR IMBALANCED DATA</b> Lkhagvadorj Munkhdalai <sup>1</sup> , Oyun-Erdene Namsrai <sup>2</sup> , Van-Huy Pham <sup>3</sup> , Keun Ho Ryu <sup>3</sup> <sup>1</sup> Chungbuk National University, <sup>2</sup> National University of Mongolia, <sup>3</sup> Ton Duc Thang University, Vietnam
25	<b>SOME METHODS OF MULTIPLE CRITERIA DECISION-MAKING AID</b> Dultuya Terbish, Oyumaa Amgalanbat, Tserennadmid Tumurbaatar, Enkhbolor Adiya The National University of Mongolia
26	<b>SIMULATION USING ANALOGIC 5.0 TO INCREASE THE EFFICIENCY OF COAL TRANSPORTATION</b> Enkhbayar Jamsranjav, Gerelt-Od Uvgunkhuu, Enkhtuul Sharavdemberel National University of Mongolia
27	<b>A STUDY ON INTERACTIONS OF THE SARS-COV-2 SPIKE PROTEINS WITH THE HUMAN TOLL-LIKE RECEPTOR 4 USING MOLECULAR DYNAMIC SIMULATIONS</b> Chagdarjav Munkhdalai <sup>1</sup> , Enkhbayar Purevjav <sup>2</sup> , Batgerel Balt <sup>1</sup> , Mijiddorj Batsaikhan <sup>2</sup> <sup>1</sup> Mongolian Academy of Sciences <sup>2</sup> National University of Mongolia
28	<b>ANALYSIS OF WINNING STOCKS OF SELECTED COMPANIES</b> Bumanjargal Gombodorj, Yumjindulam Ganbat, Nermaa Zunai Mongolian University of Life Sciences, Mongolia
29	<b>NEUROSENSORY INTEGRATION DYNAMICS OF THE C. ELEGANS GUIDANCE NETWORK</b> Yu Zhang, Hexi Baoyin Tsinghua University, China
30	<b>MONITORING STEPPE FIRE USING MACHINE LEARNING AND SATELLITE DATA</b> Iderbayar Shiilegbat <sup>1,2</sup> , Bayanjargal Darkhijav <sup>1</sup> , Tsolmon Rentsen <sup>1</sup> <sup>1</sup> National University of Mongolia, Mongolia <sup>2</sup> Institute of Mathematics and Digital Technology, Mongolia
<b>10:00</b>	<b>June</b>
<b>22, 2022</b>	<b>COUNTRYSIDE TRIP /TERELJ STAR/</b> Depart from the main building of National University of Mongolia