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ISAHP2022 SUMMARY SCHEDULE

THURSDAY DECEMBER 15			
Time	Room	Title	Presenter
8:00 am	Zoom Workshop 1	W1 - How to use AHP for conflict resolution	Dr. Marcel Minutolo (<i>United States</i>) - Robert Morris University
9:00 am	Zoom Workshop 2	W2 - ANP Row Sensitivity	Dr. William Adams (<i>United States</i>) – Decision Lens
10:00 am	Zoom Workshop 3	W3 - AHP using the new AHP ANP Lib for Python	Dr. Elena Rokou (<i>United States</i>) - Creative Decisions Foundation
11:00 am	Zoom Workshop 4	W4 - Introduction to ANP	Dr. Ilker Topcu (<i>United States</i>) - Decision Lens
11:00 am	Zoom Workshop 5	W5 - Introduction to ANP in Spanish	Dr. Raúl Alvear Pérez (<i>Chile</i>)- Universidad de Chile
12:00 pm	Zoom Workshop 6	W6 - Why one should use Fuzzy AHP and when it is appropriate?	Dr. Cengiz Kahraman (<i>Turkey</i>) - Istanbul Technical University

FRIDAY DECEMBER 16

Time	Room	Title	Presenter
7:30am	Zoom	Welcome/Opening Ceremony	Prof.Luis Vargas (<i>United States</i>) – <i>University of Pittsburgh</i> Mr.John Saaty (<i>United States</i>) – <i>Decision Lens</i>
8:00am	Zoom Plenary Speech Room	P1 – Conflict Resolution	Dr. Amos Guiora (<i>United States</i>) - <i>University of Utah</i>
9:15am	Zoom Room A&B	Break Out Sessions: FR_RMA_TR1 FR_RMB_TR6	
10:15am	Zoom Room A&B	Break Out Sessions: FR_RMA_TR8 FR_RMB_TR 7&11	
11:30am	Zoom Room A&B	Break Out Sessions: FR_RMA_TR3 FR_RMB_TR2	
1:00pm	Zoom Plenary Speech Room	P2 - Prioritizing Organ Transplant Allocation using AHP	Dr. James Alcorn (<i>United States</i>) - <i>United Network for Organ Sharing</i>
2:15pm	Zoom Room A&B	Break Out Sessions: FR_RMA_TR11 FR_RMB_RMA_STUDENTS	

SATURDAY DECEMBER 17

Time	Room	Title	Presenter
8:00am	Zoom Plenary Speech Room	P3 - Decisions in Disaster Risk: A Novel Model for Disaster Risk Assessment Using the AHP	Dr. Madhury Ray (<i>United States</i>) - <i>NYC Department of Health and Mental Hygiene</i>
9:15am	Zoom Room A&B	Break Out Sessions: SA_RMA_TR1 SA_RMB_TR9	
10:15am	Zoom Room A&B	Break Out Sessions: SA_RMA_TR8 SA_RMB_TR6	
11:30am	Zoom Room A&B	Break Out Sessions: SA_RMA_MISC SA_RMB_TR2	
1:00pm	Zoom Plenary Speech Room	P4 - Strategic planning and decision making challenges in Education	Dr. Nina Begicevic Redjep (<i>Croatia</i>) - <i>University of Zagreb</i>
2:15pm	Zoom Room A&B	Break Out Sessions: SA_RMA_TR 5&9 SA_RMB_TR11	

SUNDAY DECEMBER 18

Time	Room	Title	Presenter
8:00am	Zoom Plenary Speech Room	P5 - AHP in Practice to promote Collective Decision Making	Dr. Oğuz Babüroğlu(Turkey) - <i>Sabancı University</i> Dr. Ilker Topcu (Turkey) - <i>Istanbul Technical University</i> Dr. Ozay Ozaydin (Turkey) - <i>Dogus University</i>
9:15am	Zoom Room A&B	Break Out Sessions: SU_RMA_TR1 SU_RMB_TR9	
10:15am	Zoom Room A&B	Break Out Sessions: SU_RMA_TR8 SU_RMB_TR4	
11:30am	Zoom Room A&B	Break Out Sessions: SU_RMA_TR3 SU_RMB_TR6	
12:30pm	Zoom Room A&B	Break Out Sessions: SU_RMA_MISC SU_RMB_TR2	
1:30pm	Zoom	Closing Ceremony	Prof.Luis Vargas (United States) – <i>University of Pittsburgh</i> Rozann Saaty (United States) – <i>Creative Decisions Foundations</i>

BREAK OUT SESSIONS SUMMARY SCHEDULE

FRIDAY DECEMBER 15 - BREAK OUT SESSIONS	
FRIDAY 9:15 am	
Zoom Room A	FR_RMA_TR1 Prof. Luis Vargas (University of Pittsburgh)
SIGNIFICANCE OF THE ORDER OF PAIRWISE COMPARISONS IN AHP: AN UPDATE	<i>Oleh Andriichuk¹, Sergii Kadenko¹, Vitalii Tsyganok¹ (1. Institute for Information Recording of the National Academy of Sciences of Ukraine)</i>
PROPOSALS FOR THE SEQUENCES OF PAIRWISE COMPARISONS	<i>Zsombor Szádoczki¹, Sándor Bozóki¹ (1. Institute for Computer Science and Control (SZTAKI), Eötvös Loránd Research Network (ELKH), Hungary)</i>
CRISP JUDGEMENT SCALE-BASED SENSITIVITY ANALYSIS FOR PROVIDING RELIABLE QUALITATIVE AHP/ANP USE OUTCOMES	<i>Grzegorz Ginda¹, Chellappa Vigneshkumar² (1. AGH Univeristy of Science and Technology, 2. Indian Institute of Technology Guwahati)</i>
Zoom Room B	FR_RMB_TR6 Dr. Monica Garcia Melon (Universitat Politecnica de Valencia)
CLASSIFICATION OF OIL AND GAS COMPANIES AS TO THEIR ESG PARAMETERS FROM THE AHP-TOPSIS-2N METHOD	<i>Pedro Pontes Gomes Lopes Martins¹, Vitor Pinheiro de Araújo COSTA², Ian José Agra Gomes³, Igor Pinheiro de Araújo Costa⁴, Miguel Ângelo Lellis Moreira¹, Adilson Terra¹, Carlos Francisco Simões Gomes</i>

		¹ , Marcos Santos ⁸ (1. Federal Fluminense University, 2. Brazilian Air Force, 3. Brazilian Navy, 4. Naval Systems Analysis Centre, 5. Military Institute of Engineering)
DETERMINATION OF SELECTION CRITERIA FOR WAVE ENERGY CONVERTERS		Sertap Varol ¹ , Hasan Suat Arslan ¹ , Irem Ucal Sari ¹ (1. Istanbul Technical University)
CLIMATE-NEUTRAL CITIES WITH A GENDER PERSPECTIVE: ASSESSING THE INTERACTION BETWEEN GENDER AND CLIMATE OBJECTIVES IN URBAN POLICIES		Monica Garcia Melon ¹ , Isabel Aparisi-Cerda ¹ , David Ribó-Pérez ³ , Julia Pineda-Soler ¹ , Julia Gomar-Pascual ¹ , Rocío Poveda-Bautista ¹ (1. Universitat Politècnica de Valencia, 2. Delft University)
FRIDAY 10:15am		
Zoom Room A	FR_RMA_TR8	Prof. Birsen Karpak (Youngstown State University)
PREFERENCES ANALYSIS OF RESTAURANTS, INDUSTRY AND RETAILERS FOR SELECTING FRUITS AND VEGETABLES SUPPLIERS IN SPAIN, FRANCE AND MOROCCO		Adrià Menéndez I Molist ¹ , Zein Kallas ¹ , Maite Puig de Morales ³ , Hassan Ouabouch ⁴ , Kaoutar Elfazazi ⁵ , YOUNES NOUTFIA ⁵ , Olfa Boughamoura ³ , Karima El Baamran ⁴ (1. Centre for Agro-food Economy & Development-CREDA-UPC-IRTA, 2. International Centre for Advanced Med. Agronomic Studies-CIHEAM-IAMM, 3. Université Hassan 2 de Casablanca, 4. National Institute of Agricultural Research-INRA)

<p>CONSUMERS' PREFERENCES FOR SUSTAINABILITY ATTRIBUTES WHEN SELECTING A PLACE TO PURCHASE FRUITS AND VEGETABLES IN SPAIN, FRANCE & MOROCCO</p>	<p><i>Lorena Ruiz de Larrinaga ¹, Zein Kallas ², Adrià Menéndez I Molist ¹, Maite Puig de Morales ⁴, Nadia Houmy ⁵, Hassan Ouabouch ⁶, YOUNES NOUTFIA ⁵, Olfa Boughamoura ⁴, Karima El Baamran ⁶ (1. Centre for Agro-food Economy & Development-CREDA-UPC-IRTA, 2. Centre for Agro-food Economy & Development, 3. International Centre for Advanced Med. Agronomic Studies-CIHEAM-IAMM, 4. National Institute of Agricultural Research- INRA, 5. Université Hassan 2 de Casablanca)</i></p>
<p>ASSESSING FARMERS' OBJECTIVES TO PARTICIPATE IN SHORT FOOD SUPPLY CHAINS</p>	<p><i>Adrià Menéndez I Molist ¹, Zein Kallas ², Maite Puig de Morales ³, YOUNES NOUTFIA ⁴, Hassan Ouabouch ⁵, Olfa Boughamoura ³, Aouatif Benali ⁴, Karima El Baamran ⁵ (1. Centre for Agro-food Economy & Development-CREDA-UPC-IRTA, 2. Centre for Agro-food Economy & Development, 3. International Centre for Advanced Med. Agronomic Studies-CIHEAM-IAMM, 4. National Institute of Agricultural Research- INRA, 5. Université Hassan 2 de Casablanca)</i></p>
<p>Zoom Room B</p>	<p>FR_RMB_TR 7&11 Müjgan Sağır</p>

MITIGATION OF HYDROGEOLOGICAL RISK: RANKING OF AREAS PRONE TO WATER-RELATED HAZARDS BY PRIORITY OF INTERVENTION	<i>Chiara D'Alpaos</i> ¹ (1. Department ICEA - University of Padova)
AHP/ANP-BASED RISK ASSESSMENT CUSTOMISATION	<i>Grzegorz Ginda</i> ¹ , <i>Chellappa Vigneshkumar</i> ² (1. AGH Univeristy of Science and Technology, 2. Indian Institute of Technology Guwahati)
FINDING OPTIMAL INFRASTRUCTURE INVESTMENT LOCATIONS WITH GIS-MCDA	<i>Tatiana Merino-Benítez</i> ¹ , <i>Víctor Hernández</i> ¹ , <i>Ileana Grave</i> ¹ , <i>Luis Bojórquez-Tapia</i> ¹ (1. Laboratorio Nacional de Ciencias de la Sostenibilidad, Instituto de Ecología, UNAM)
FRIDAY 11:30 am	
Zoom Room A	FR_RMA_TR3 Ilker Topcu
EXAMINING FACTORS AFFECTING THE EMIGRATION DECISION OF MEDICAL DOCTORS IN TURKEY USING AHP	<i>Cigdem Kadaifci</i> ¹ , <i>Ilker Topcu</i> ¹ , <i>Ahmet ÖZDEMİR</i> (1. Istanbul Technical University, 2. Ministry of Health)
CLASSIFICATION OF VOLUNTEERS FOR SEARCH AND RESCUE ACTIVITIES TO ASSIGNMENT IN HUMANITARIAN ORGANIZATIONS USING INTEGRATED AHP- TOPSIS-SORT METHOD	<i>Ümit Özdemir</i> ¹ , <i>Süleyman Mete</i> ² , <i>Muhammet Gul</i> ³ (1. Munzur University, 2. Gaziantep University, 3. Istanbul University)

ASSESSMENT OF FOREST FIRE RISK SCORE: AN MCDM APPLICATION		<i>Sena Cakmak ¹, Secil Yurdakul Erol ², Ilker Topcu ¹ (1. Istanbul Technical University, 2. Istanbul University – Cerrahpasa)</i>
Zoom Room B	FR_RMB_TR2 Prof. Claudio Garuti (Chile) - Fulcrum Engineering	
APPLICATION OF AHP AND TOPSIS METHODS FOR THE SELECTION OF INSTRUCTORS IN THE BRAZILIAN AIR FORCE		<i>Carlos Eduardo José da Silva ¹, Luiz Leduino de Salles-Neto ², Marcos Santos ³ (1. Aeronautics Institute of Technology, 2. Federal University of São Paulo, 3. Brazilian Navy)</i>
EVALUATION OF EDUCATION TYPES UTILIZING MCDM METHODS		<i>Mehmet Soydan ¹, Ilker Topcu ¹ (1. Istanbul Technical University)</i>
A DECISION ANALYSIS PROPOSAL TO STRENGTH INDUSTRIAL COMPLIANCE OF MARITIME EDUCATION AND TRAINING PROGRAMS		<i>Muhittin Orhan ¹, Metin Celik ¹ (1. Istanbul Technical University)</i>
FRIDAY 2:15 pm		
Zoom Room A	FR_RMA_TR11 Anna Florek	
APPLICATION OF THE AHP MODEL TO INVESTIGATE CRITICAL FACTORS FOR MILLENNIALS ONLINE RETAILING REPURCHASE AND SWITCHING BEHAVIOUR IN LAGOS METROPOLIS		<i>Bolajoko Dixon-Ogbechi ¹, Adebola Adekoya ¹ (1. University of Lagos)</i>

<p>PRIORITIZATION OF POTENTIAL MOTIVATIONS AFFECTING THE ADOPTION DECISION OF A SUSTAINABLE INNOVATION INVOLVED IN CIRCULAR ECONOMY AT THE FARM LEVEL: CATALONIA CASE STUDY</p>	<p><i>Selene Ivette Ornelas Herrera ¹, Zein Kallas ² (1. UPC-Centre for Agro-food Economy & Development-CREDA-UPC, 2. Centre for Agro-food Economy & Development)</i></p>
<p>FEASIBILITY OF THERMAL ANALYSIS OF CONSTRUCTIVE SYSTEMS USING THE AHP-GAUSSIAN METHOD</p>	<p><i>Bruna Apolinário ¹, Luiz Fernando Kowalski ², Marcos dos Santos ³ (1. Centro Universitario Adventista de São Paulo, 2. UFSCAR - Federal University of São Carlos, 3. IME - Instituto Militar de Engenharia)</i></p>
<p>Zoom Room B</p>	<p>FR_RMB_STUDENTS Dr. Marcel Minutolo (Robert Morris University)</p>
<p>LIMITING FOOD WASTE IN SCHOOLS USING AHP</p>	<p><i>Katherine Crossen ¹, Mitchell Wong ¹, Ryan Doyle ¹, Trevor Broman ¹ (1. Robert Morris University)</i></p>
<p>APPLICATION OF THE ANALYTIC HIERARCHY PROCESS (AHP) IN THE SELECTION ECOLOGICAL ACTIVITIES AND PROJECTS IN WIELICZKA</p>	<p><i>Jimena Arianna Jurado Bustamante ¹, Leslie Picon ¹, Emilio Tafur ¹ (1. Universidad del Pacifico)</i></p>

SATURDAY DECEMBER 16 - BREAK OUT SESSIONS

SATURDAY 9:15am

Zoom Room A	SA_RMA_TR1 Prof. Luis Vargas (University of Pittsburgh)	
ANALYSIS OF THE GAUSSIAN AHP METHOD IN THE LIGHT OF THE PARETO FRONTIER OBTAINED THROUGH THE MULTI-ATTRIBUTE TRADESPACE EXPLORATION (MATE) METHOD – A CASE STUDY	<i>Sergio Oliveira ¹, Marcos Santos ², Igor Pinheiro de Araújo Costa ³ (1. Universidade Federal do Ceara, 2. Brazilian Navy, 3. Naval Systems Analysis Centre)</i>	
THE AHP PHENOMENON OF RANK REVERSAL DEMYSTIFIED	<i>Pawel Tadeusz Kazibudzki ¹ (1. Opole University of Technology)</i>	
Zoom Room B	SA_RMB_TR9 Prof. Cengiz Kahraman (Istanbul Technical University)	
EXTENSIONS OF AHP/ANP AT INTERNATIONAL CONFERENCES: EXAMPLES FROM ISAHP AND INFUS CONFERENCES	<i>Basar Oztaysi ¹, Selcuk Cebi ¹, Sezi Cevik ¹, Cengiz Kahraman ¹ (1. Istanbul Technical University)</i>	
INTEGRATION OF ANALYTIC HIERARCHY PROCESS WITH OTHER MCDM METHODS: A LITERATURE REVIEW	<i>Selcuk Cebi ¹, Sezi Cevik Onar ¹, Basar Oztaysi ¹, Cengiz Kahraman ¹ (1. Istanbul Technical University)</i>	

FUZZY EXTENSIONS OF AHP AND ANP: A STATE OF THE ART LITERATURE REVIEW		<i>Sezi Cevik¹, Basar Oztaysi¹, Selcuk Cebi¹, Cengiz Kahraman¹ (1. Istanbul Technical University)</i>
SATURDAY 10:15am		
Zoom Room A	SA_RMA_TR8 Prof. Valerio Salomon (Sao Paulo State University)	
THIRD-PARTY LOGISTICS SERVICE PROVIDERS IN CIRCULAR ECONOMY	<i>Birsen Karpak¹, Ozden Bayazit², Tacibaht Turel¹ (1. Youngstown State University, 2. Central Washington University)</i>	
CIRCULAR 'SUPPLIER EVALUATION AND SELECTION' USING HYBRID MCDM METHODS: CASE OF THE STEEL MANUFACTURING INDUSTRY	<i>RAKESH VERMA¹, Ajaygopal KV², Saroj Koul³ (1. ADS, National Institute of Industrial Engineering (NITIE), Mumbai-400087, 2. National Institute of Industrial Engineering (NITIE), Mumbai-400087, 3. Jindal Global Business School NCR, 131001)</i>	
A DECISION MAKING APPROACH FOR SELECTING SUSTAINABLE SUPPLIER BASED ON SPHERICAL FUZZY AHP-TOPSIS	<i>Sezin GÜLERYÜZ¹ (1. Bartin University)</i>	
Zoom Room B	SA_RMB_TR6 Dr. Monica Garcia Melon (Universitat Politecnica de Valencia)	
GREEN CONSTRUCTION IN NEW COMMERCIAL BUILDINGS	<i>Landon Lauer¹, Dominic Irwin¹, Hunter Smith¹, Kellen Nerem¹, Ryan Main¹ (1. Robert Morris University)</i>	

AHP/ANP IMPLEMENTATION FOR ADJUDICATING ENVIRONMENTAL TORT CLAIMS	<i>Paola Gómez-Priego¹, Luis Bojórquez-Tapia¹ (1. Laboratorio Nacional de Ciencias de la Sostenibilidad, Instituto de Ecología, UNAM)</i>
DETERMINATION OF SELECTION CRITERIA FOR WAVE ENERGY CONVERTERS	<i>Sertap Varol¹, Hasan Suat Arslan¹, Irem Ucal Sari¹ (1. Istanbul Technical University)</i>
SATURDAY 11:30am	
Zoom Room A	SA_RMA_MISC Cigdem Kadaifci
CRISP JUDGEMENT SCALE-BASED SENSITIVITY ANALYSIS FOR PROVIDING RELIABLE QUALITATIVE AHP/ANP USE OUTCOMES	<i>Grzegorz Ginda¹, Chellappa Vigneshkumar² (1. AGH Univeristy of Science and Technology, 2. Indian Institute of Technology Guwahati)</i>
COMBINING AHP, TOPSIS AND CONJOINT ANALYSIS TO RANK SHOPPING CENTERS IN THE LOCALITY OF MBANZA-NGUNGU, DR CONGO	<i>Ruffin-Benoît Ngoie¹, Ossok Dibakidi¹, Ruffin Mbaka¹, Jean-Aimé Sakulu¹, Don Musoni¹ (1. Institut Supérieur Pédagogique de Mbanza-Ngungu)</i>

PARTICLE SWARM OPTIMIZATION TO SOLVE INCOMPLETE PAIRWISE COMPARISON		<i>Ririn Diar Astanti¹, The Jin Ai², Leonardo Vincent Hendrawan² (1. Universitas Atma Jaya Yogyakarta, 2. UNIVERSITAS ATMA JAYA YOGYAKARTA)</i>
Zoom Room B	SA_RMB_TR2 Anna Ujwary-Gil (Institute of Economics, Polish Academy of Sciences)	
ENHANCING POLICE-COMMUNITY RELATIONS VIA A CONFLICT RESOLUTION APPROACH		<i>Amos Guiora¹, Marcel Minutolo², Luis Vargas³, Margaret Vargas³, H.J. Zoffer³ (1. University of Utah, 2. Robert Morris University, 3. University of Pittsburgh)</i>
ANALYZING EIA IN PARANÁ, BRAZIL AND CALIFORNIA, UNITED STATES WITH FUZZY-SET QUALITATIVE COMPARATIVE ANALYSIS AND THE ANALYTICAL HIERARCHY PROCESS		<i>John Loomis¹, Maurício Dziedzic² (1. Universidade Positivo, 2. University of Northern British Columbia)</i>
APPLICATION OF THE AHP-TOPSIS-2N METHOD IN PRIORITIZING TECHNOLOGIES OF INTEREST TO THE BRAZILIAN ARMY		<i>Romullo Girardi¹, Marcos Santos¹ (1. Military Institute of Engineering)</i>
SATURDAY 2:15pm		
Zoom Room A	SA_RMA_TR 5 & 9 Claudio Garuti	

A DECISION SUPPORT SYSTEM FOR THE OPTIMAL ALLOCATION AND DISTRIBUTION OF COVID-19 VACCINES USING ANALYTIC HIERARCHY PROCESS (AHP) AND INTEGER PROGRAMMING (IP) MODELS		<i>Songul Cinaroglu ¹ (1. Hacettepe University)</i>
TRADITIONAL, DEA-AHP RANKING AND POSSIBILISTIC FUZZY DEA APPROACH FOR EFFICIENCY ANALYSIS OF CITY HOSPITALS		<i>Elena Rokou (United States)¹, William Adams (United States)² (1. CDF, 2. Decision Lens)</i>
IOT BASED SMART CITIES EVALUATION BY CIRCULAR INTUITIONISTIC FUZZY ANALYTIC HIERARCHY PROCESS		<i>ESRA ÇAKIR ¹ (1. Galatasaray University)</i>
Zoom Room B	SA_RMB_TR11 Nigel Clark, Anna Florek	
A NOVEL MODEL FOR PROCESS MATURITY MEASUREMENT BASED ON FUZZY ANALYTIC HIERARCHY PROCESS		<i>Elif Buyukkaya ¹, Selcuk Cebi ¹ (1. Yildiz Technical University)</i>
EVALUATING THE MARKET CHANCES OF NANO-CELLULOSE FOR SURFACE ABSORPTION OF HEAVY METALS		<i>majid azizi ¹, mohammad azad fallah ¹, hasan shoja ³ (1. university of Tehran, 2. university of tehran)</i>
DEVELOPING AN AHP-BASED MODEL FOR THE PROBLEM-SOLUTION FIT OF BATTERY ELECTRIC VEHICLES (BEV): A CASE OF THE MOST AFFORDABLE BEV IN INDONESIAN MARKET		<i>Ade Febransyah ¹ (1. School of Business and Economics, Universitas Prasetiya Mulya)</i>

SUNDAY DECEMBER 17 - BREAK OUT SESSIONS

SUNDAY 9:15 am

Zoom Room A	SU_RMA_TR1 Prof. Luis Vargas (University of Pittsburgh)	
REPRESENTATIONS, RATIOS, AND UNITS	<i>William Wedley¹, Orrin Cooper², Idil Yavuz³ (1. Simon Fraser University, 2. Self Employed, 3. Dokuz Eylul University)</i>	
AN ECONOMETRIC MODEL MRLM + ANALYTIC HIERARCHY PROCESS (AHP) TO SELECT THE BEST ALTERNATIVE FOR A REAL ESTATE INVESTMENT. CASE: APARTMENT IN PANAMA CITY (PANAMA).	<i>Miguel Camacaro¹, Ernesto Mock¹ (1. Appraisers Reading Club)</i>	

Zoom Room B	SU_RMB_TR9 Prof. Basar Oztaysi (Istanbul Technical University)	
ANALYTIC HIERARCHY PROCESS BASED ON THE MAGNITUDE OF Z-NUMBERS	<i>Nik Muhammad Farhan Hakim Nik Badrul Alam¹, Ku Muhammad Naim Ku Khalif¹, Nor Izzati Jaini¹ (1. Centre for Mathematical Sciences, Universiti Malaysia Pahang, Gambang, Malaysia)</i>	
GROUPING REPRESENTATIVE POINTS IN AHP-FUZZYSORT WITH AGGLOMERATIVE HIERARCHICAL CLUSTERING	<i>Alvaro Labella¹, Diego García-Zamora¹, Wen He¹, Rosa M. Rodríguez¹, Luis Martínez¹ (1. University of Jaén)</i>	

SUNDAY 10:15 am

Zoom Room A	SU_RMA_TR8 Lirong Wei Prof. Birsen Karpak (Youngstown State University)	
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ENTERPRISE BLOCKCHAINS ADOPTION		<i>Birsen Karpak¹, Deepa Iyer¹, Ilker Topcu³ (1. Youngstown State University, 2. Istanbul Technical University)</i>
MULTI-CRITERIA ASSESSMENT OF SPARE PARTS OF HYDRAULIC SYSTEMS		<i>Nuno Torre¹, Valerio Salomon¹ (1. Sao Paulo State University)</i>
EFFECT OF STAKEHOLDERS' BIASED JUDGMENTS ON THE RESULT OF THE GROUP DECISION MAKING		<i>Omid Hossein Zadeh¹, Marzieh Hajjarian¹, Reza Abdi³ (1. Assistant professor, Department of Forestry, Faculty of Natural Resources, Urmia University, Urmia, Iran, 2. School of Management, Bradford University)</i>
Zoom Room B	SU_RMB_TR4 Shashi Bhattarai	
MULTIDIMENSIONAL CLASSIFICATION OF WOMEN'S GROUPS IN BURKINA FASO WITH A VIEW TO PROVIDING FINANCIAL AND TECHNICAL ASSISTANCE: AHP METHOD APPLICATION CASES		<i>Zoïnabo SAVADOGO¹, Frederic NIKIEMA² (1. Laboratory of Applied Mathematics, Joseph KI-ZERBO University, 2. Université Joseph KI-ZERBO)</i>
STRATEGIC PRIORITIES OF INDONESIAN YOUNG ENTREPRENEURS' MOTIVATION		<i>Jozef Raco¹, James V. Krejci², Yulius Christian Raton¹, Ronaldo F Rottie¹, Tryadi Wilhelmus Tumewu¹, Jeanne Ellyawatis⁶, Silvy L Mandey⁷, Jeanette Ety Magdalena Sopotan⁷ (1. Universitas Katolik De La Salle Manado, 2. Lewis University, Illinois, USA-College of Business, 3. Universitas Atma Jaya Yogyakarta, 4. Universitas Sam Ratulangi Manado)</i>
PRIORITIZATION OF ENABLING TECHNOLOGIES THROUGHOUT DIGITAL TRANSFORMATION IN SHIP		<i>Muhittin Orhan¹, Metin Celik¹ (1. Istanbul Technical University)</i>

MANAGEMENT COMPANIES		
SUNDAY 11:30 am		
Zoom Room A	SU_RMA_TR3 Sule Onsel ekici	
AN INTEGRATED MCMD MODEL FOR CLIMATE-SMART AGRICULTURE	<i>Ida Gjergji ¹, Ilker Topcu ² (1. TU Wien, 2. Istanbul Technical University)</i>	
EVALUATION OF COMPANIES IN THE MINING AND STEEL INDUSTRY SECTOR USING THE MULTI-CRITERIA DECISION SUPPORT METHOD AHP-TOPSIS-2N	<i>Felipe Fortuna Lucas ¹, ANA AMÉLIA PASTOR MENDONCA DA SILVA ², Carlos Francisco Simões Gomes ³, Marcos Santos ⁴ (1. Universidade Federal Fluminense (UFF), 2. Furnas Centrais Elétricas S.A, 3. Federal Fluminense University, 4. Brazilian Navy)</i>	
AN INTEGRATED MCDM APPLICATION FOR RANKING OF SMART CITIES	<i>Mehmet Güneş ¹, Ilker Topcu ¹ (1. Istanbul Technical University)</i>	
Zoom Room B	SU_RMA_TR 6 & 8 Ms. Hannia Gonzalez-Urango (Ingenio, CSIC - Universitat Politècnica de València)	
A MULTI-METHOD APPROACH TO STUDY THE DETERMINANTS OF ACADEMIC PERFORMANCE OF SECONDARY STUDENTS: THE CASE OF CARTAGENA	<i>Hannia Gonzalez-Urango ¹, Rosaura Arrieta ², Daniel Guerrero Agámez ² (1. Ingenio, CSIC - Universitat Politècnica de València, 2. Universidad de Cartagena)</i>	

DE INDIAS (COLOMBIA)		
EVALUATION OF OPTIONS FOR FOOD WASTE MANAGEMENT IN METRO MANILA USING AHP		<i>Jahziel Lantin ¹, Michael Angelo Promentilla ¹ (1. De La Salle University - Manila)</i>
EVALUATION OF METAVERSE RISKS FOR SUPPLY CHAIN SUSTAINABILITY USING SPHERICAL FUZZY AHP		<i>Ayça Maden ¹ (1. Beykent University)</i>
SUNDAY 12:30 pm		
Zoom Room B	SU_RMB_TR2 Shashi Bhattarai	
CONSOLIDATION OF CITIZENS' OPINIONS WITH THE AHP FOR PDCA CYCLE IN LOCAL GOVERNMENTS		<i>Yoichi Iida ¹ (1. Suwa University of Science)</i>
TOURISM DEVELOPMENT OF THE SIAU TAGULANDANG BIARO ISLANDS' REGENCY USING AHP AND BUCKLEY'S FUZZY-AHP		<i>Jozef Raco ¹, James V. Krejci ², Yulius Christian Raton ¹, Ronaldo F Rottie ¹, Tryadi Wilhelmus Tumewu ¹, Denny Kondoj ⁶ (1. Universitas Katolik De La Salle Manado, 2. Lewis University, Illinois, USA- College of Business, 3. Secretary Office of Siau Tagulandang Biaro Island's Regency, North Sulawesi)</i>
FACTORS AFFECTING THE SUCCESS OF AIR-RAIL INTEGRATION IN THAILAND		<i>Benyapa Suwannarat ¹, Chanuwat Nitikittiwat ¹, Nitchamol Samittivate ¹, Waralee Rattanakijuntorn ¹ (1. King Mongkut's Institute of Technology Ladkrabang)</i>

ANALYTIC HIERARCHY PROCESS BASED ON THE MAGNITUDE OF Z-NUMBERS

Nik Muhammad Farhan Hakim Nik Badrul Alam ¹, Ku Muhammad Naim Ku Khalif ¹, Nor Izzati Jaini ¹ (1. Centre for Mathematical Sciences, Universiti Malaysia Pahang, Gambang, Malaysia)

Abstract

The analytic hierarchy process (AHP) is a powerful multi-criteria and multi-alternative decision-making model which helps decision makers in giving preferences using pairwise comparison matrices. The development of AHP using fuzzy numbers got attention from many researchers due to the capability of fuzzy numbers in handling vagueness and uncertainty. The integration of AHP with fuzzy Z-numbers has improved the model since the reliability of decision makers is considered, in which the judgement is followed by the degree of certainty or sureness. Most of the existing decision-making models based on Z-numbers transform the Z-numbers into regular fuzzy numbers by integrating the reliability parts into the restriction parts which has caused a great loss of information. Hence, this research develops the AHP based on the magnitude of Z-numbers, in which the magnitude is used to represent the criteria weights. A numerical example of criteria ranking for the prioritization of public services for digitalization is implemented to illustrate the proposed AHP model. The proposed AHP model is only used for criteria ranking, hence it can be integrated with other decision-making methods such as TOPSIS or VIKOR to rank the alternatives.

GROUPING REPRESENTATIVE POINTS IN AHP-FUZZYSORT WITH AGGLOMERATIVE HIERARCHICAL CLUSTERING

Alvaro Labella ¹, Diego García-Zamora ¹, Wen He ¹, Rosa M. Rodríguez ¹, Luis Martínez ¹ (1. University of Jaén)

Abstract

The AHP-FuzzySort model extends the AHP-Sort II to improve the assignment of alternatives to different classes by using the fuzzy set theory. Both algorithms demand pairwise comparisons among

representative points (RP) and profiles, to reduce the number of comparisons. This contribution formalizes in the AHP-FuzzySort model the use of the agglomerative hierarchical clustering (AHC) to group profiles and RP.

SUNDAY – SESSION 2A – TRACK 8

10:15am

Short Code: SU_RMA_TR8

Session Chair: Prof. Birsen Karpak (Youngstown State University) ,
Lirong Wei

ENTERPRISE BLOCKCHAINS ADOPTION

Birsen Karpak¹, Deepa Iyer¹, Ilker Topcu³ (1. Youngstown State University, 2. Istanbul Technical University)

Abstract

It is a great challenge for enterprises to adopt the blockchain platform of the right fit. Part of the reason of this challenge is the limited availability of reliable evaluation frameworks. One needs technical knowledge to select a suitable platform for each application. In this study, we are proposing an integrated diffusion of Innovation (DOI) and Technological, Organizational and environmental (TOE) model. To our knowledge there is only one framework in literature somewhat similar to ours yet only uses TOE and don't consider any alternative blockchain platforms. We know from our earlier research that importance of factors influencing the decisions are impacted by the alternatives. Our research fulfills this research gap in literature. We, therefore, assert that frameworks not incorporating alternatives have limited applicability.

MULTI-CRITERIA ASSESSMENT OF SPARE PARTS OF HYDRAULIC SYSTEMS

Nuno Torre¹, Valerio Salomon¹ (1. Sao Paulo State University)

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