



## Thursday, 15 December

8am	<b>W1 - How to use AHP for conflict resolution</b> Chaired by: Dr. Marcel Minutolo
	<b>How to use AHP for conflict resolution</b> » Marcel Minutolo
9am	<b>W2 - ANP Row Sensitivity</b> Chaired by: Dr. William Adams
	<b>ANP Row sensitivity</b> » William J. Adams
10am	<b>W3 - AHP using the new AHP ANP Lib for Python</b> Chaired by: Elena Rokou
	<b>AHP using the new AHP ANPLib for Python</b> » Elena Rokou
11am	<b>W4 - Introduction to ANP</b> Chaired by: Ilker Topcu
	<b>Introduction to ANP</b> » Ilker Topcu
11am	<b>W5 - Introduction to ANP in Spanish</b> Chaired by: Raul Alvear
	<b>Introduction to ANP in Spanish</b> » Raúl Alvear Pérez
12pm	<b>W6 - Why one should use Fuzzy AHP and when it is appropriate?</b> Chaired by: Prof. Cengiz Kahraman and Prof. Selcuk Cebi and Prof. Basar Oztaysi and Prof. Sezi Cevik Onar

## Why one should use Fuzzy AHP and when it is appropriate?

» Cengiz Kahraman, Sezi Çevik Onar, Başar Öztayşı, Selçuk Çebi

## Friday, 16 December

7:30am	<b>Welcome/ Opening Ceremony</b> Chaired by: Prof. Luis Vargas and Mr. John Saaty
8am	<b>P1 - Conflict Resolution</b> Chaired by: Prof. Amos Guiora
	<b>Conflict Resolution</b> » Amos Guiora
9am	<b>BR_FR_1 - Break</b>
9:15am	<b>FR_RMA_TR1</b> Chaired by: Prof. Luis Vargas
9:15am	<b>SIGNIFICANCE OF THE ORDER OF PAIRWISE COMPARISONS IN AHP: AN UPDATE</b> » Dr. Oleh Andriichuk, <a href="#">Dr. Sergii Kadenko</a> , Dr. Vitalii Tsyganok
9:35am	<b>Proposals for the sequences of pairwise comparisons</b> » <a href="#">Mr. Zsombor Szádóczki</a> , Dr. Sándor Bozóki
9:55am	<b>CRISP JUDGEMENT SCALE-BASED SENSITIVITY ANALYSIS FOR PROVIDING RELIABLE QUALITATIVE AHP/ANP USE OUTCOMES</b> » <a href="#">Prof. Grzegorz Ginda</a> , <a href="#">Mr. Chellappa Vigneshkumar</a>
9:15am	<b>FR_RMB_TR6</b> Chaired by: Dr. Monica Garcia Melon



Continued from **Friday, 16 December**

9:15am **CLASSIFICATION OF OIL AND GAS COMPANIES AS TO THEIR ESG PARAMETERS FROM THE AHP-TOPSIS-2N METHOD**  
 » Mr. Pedro Pontes Gomes Lopes Martins, Mr. Vitor Pinheiro de Araújo COSTA, Mr. Jan José Agra Gomes, Mr. Igor Pinheiro de Araújo Costa, Ms. Miguel Ângelo Lellis Moreira, Mr. Adilson Terra, Dr. Carlos Francisco Simões Gomes, Dr. Marcos Santos

9:35am **DETERMINATION OF SELECTION CRITERIA FOR WAVE ENERGY CONVERTERS**  
 » Ms. Sertap Varol, Mr. Hasan Suat Arslan, Dr. Irem Ucal Sari

9:55am **Climate-neutral cities with a gender perspective: assessing the interaction between gender and climate objectives in urban policies**  
 » Dr. Monica Garcia Melon, Ms. Isabel Aparisi-Cerda, Dr. David Ribó-Pérez, Ms. Julia Pineda-Soler, Ms. Julia Gomar-Pascual, Dr. Rocío Poveda-Bautista

10:15am **FR\_RMA\_TR8**  
 Chaired by: Prof. Birsen Karpak

10:15am **PREFERENCES ANALYSIS OF RESTAURANTS, INDUSTRY AND RETAILERS FOR SELECTING FRUITS AND VEGETABLES SUPPLIERS IN SPAIN, FRANCE AND MOROCCO**  
 » Mr. Adrià Menéndez I Molist, Dr. Zein Kallas, Ms. Maite Puig de Morales, Dr. Hassan Ouabouch, Dr. Kaoutar Elfazazi, Dr. YOUNES NOUTFIA, Dr. Olfa Boughamoura, Dr. Karima El Baamran

10:35am **CONSUMERS' PREFERENCES FOR SUSTAINABILITY ATTRIBUTES WHEN SELECTING A PLACE TO PURCHASE FRUITS AND VEGETABLES IN SPAIN, FRANCE & MOROCCO**  
 » Mr. Lorena Ruiz de Larrinaga, Dr. Zein Kallas, Mr. Adrià Menéndez I Molist, Ms. Maite Puig de Morales, Dr. Nadia Houmy, Dr. Hassan Ouabouch, Dr. YOUNES NOUTFIA, Dr. Olfa Boughamoura, Dr. Karima El Baamran

10:55am **ASSESSING FARMERS' OBJECTIVES TO PARTICIPATE IN SHORT FOOD SUPPLY CHAINS**  
 » Mr. Adrià Menéndez I Molist, Dr. Zein Kallas, Ms. Maite Puig de Morales, Dr. YOUNES NOUTFIA, Dr. Hassan Ouabouch, Dr. Olfa Boughamoura, Dr. Aouatif Benali, Dr. Karima El Baamran

10:15am **FR\_RMB\_TR 7&11**  
 Chaired by: Mùjgan Sađır

10:15am **MITIGATION OF HYDROGEOLOGICAL RISK: RANKING OF AREAS PRONE TO WATER-RELATED HAZARDS BY PRIORITY OF INTERVENTION**  
 » Prof. Chiara D'Alpaos

10:35am **AHP/ANP-BASED RISK ASSESSMENT CUSTOMISATION**  
 » Prof. Grzegorz Ginda, Mr. Chellappa Vigneshkumar

10:55am **FINDING OPTIMAL INFRASTRUCTURE INVESTMENT LOCATIONS WITH GIS-MCDA**  
 » Ms. Tatiana Merino-Benítez, Mr. Víctor Hernández, Dr. Ileana Grave, Dr. Luis Bojórquez-Tapia

11:15am **BR\_FR\_2 - Break**

11:30am **FR\_RMA\_TR3**  
 Chaired by: Sule Onsel ekici

11:30am **EXAMINING FACTORS AFFECTING THE EMIGRATION DECISION OF MEDICAL DOCTORS IN TURKEY USING AHP**  
 » Dr. Cigdem Kadaifci, Prof. Ilker Topcu

11:50am **Classification of Volunteers for Search and Rescue activities to assignment in humanitarian organizations using integrated AHP-TOPSIS- Sort method**  
 » Mr. Ümit Özdemir, Prof. Süleyman Mete, Prof. Muhammet Gul

12:10pm **ASSESSMENT OF FOREST FIRE RISK SCORE: AN MCDM APPLICATION**  
 » Ms. Sena Cakmak, Prof. Secil Yurdakul Erol, Prof. Ilker Topcu



Continued from **Friday, 16 December**

- 11:30am **FR\_RMB\_TR2**  
Chaired by: Müjgan Sağır
- 11:30am **APPLICATION OF AHP AND TOPSIS METHODS FOR THE SELECTION OF INSTRUCTORS IN THE BRAZILIAN AIR FORCE**  
» Mr. Carlos Eduardo José da Silva, Dr. Luiz Leduino de Salles-Neto, Dr. Marcos Santos
- 11:50am **EVALUATION OF EDUCATION TYPES UTILIZING MCDM METHODS**  
» Mr. Mehmet Soydan, Prof. Ilker Topcu
- 12:10pm **A DECISION ANALYSIS PROPOSAL TO STRENGTH INDUSTRIAL COMPLIANCE OF MARITIME EDUCATION AND TRAINING PROGRAMS**  
» Mr. Muhittin Orhan, Prof. Metin Celik
- 12:30pm **BR\_FR\_3 - Break**
- 1pm **P2 - Prioritizing Organ Transplant Allocation using AHP**  
Chaired by: James Alcorn
- Prioritizing Organ Transplant Allocation using AHP**  
» James Alcorn
- 2pm **BR\_FR\_4 - Break**
- 2:15pm **FR\_RMA\_TR11**  
Chaired by: Anna Florek
- 2:15pm **Application of the AHP Model to investigate Critical Factors For Millennials Online Retailing Repurchase and Switching Behaviour in Lagos Metropolis**  
» Prof. Bolajoko Dixon-Ogbechi, Mr. Adebola Adekoya

- 2:35pm **Prioritization of potential motivations affecting the adoption decision of a sustainable innovation involved in circular economy at the farm level: Catalonia case study.**  
» Mrs. Selene Ivette Ornelas Herrera, Dr. Zein Kallas
- 2:55pm **FEASIBILITY OF THERMAL ANALYSIS OF CONSTRUCTIVE SYSTEMS USING THE AHP-GAUSSIAN METHOD**  
» Ms. Bruna Apolinário, Prof. Luiz Fernando Kowalski, Dr. Marcos dos Santos
- 2:15pm **SU\_RMA\_STUDENTS**  
Chaired by: Dr. Marcel Minutolo
- 2:15pm **Limiting Food Waste in Schools Using AHP**  
» Ms. Katherine Crossen, Mr. Mitchell Wong, Mr. Ryan Doyle, Mr. Trevor Broman
- 2:35pm **APPLICATION OF THE ANALYTIC HIERARCHY PROCESS (AHP) IN THE SELECTION ECOLOGICAL ACTIVITIES AND PROJECTS IN WIELICZKA**  
» Ms. Jimena Arianna Jurado Bustamante, Mr. Leslie Picon, Mr. Emilio Tafur

**Saturday, 17 December**

- 8am **P3 - Decisions in Disaster Risk: A Novel Model for Disaster Risk Assessment Using the AHP**  
Chaired by: Madhury Ray
- Decisions in Disaster Risk: A Novel Model for Disaster Risk Assessment Using the AHP**  
» Madhury (Didi) Ray
- 9am **BR\_SA\_1 - Break**



Continued from **Saturday, 17 December**

- 9:15am **SA\_RMA\_TR1**  
Chaired by: Prof. Luis Vargas
- 9:15am **Development of a computational tool in the Python language for the application of the AHP-Gaussian method**  
» [Ms. Tullio Pires](#), Mr. Vinícius dos Santos, Dr. Luiz Fávero, Dr. Marcos Santos
- 9:30am **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**  
» [Mr. Sergio Oliveira](#), Dr. Marcos Santos, Mr. Igor Pinheiro de Araújo Costa
- 9:45am **The AHP phenomenon of rank reversal demystified**  
» [Dr. Pawel Tadeusz Kazibudski](#)
- 9:15am **SA\_RMB\_TR9**  
Chaired by: Prof. Cengiz Kahraman
- 9:15am **EXTENSIONS OF AHP/ANP AT INTERNATIONAL CONFERENCES: EXAMPLES FROM ISAHP AND INFUS CONFERENCES**  
» [Prof. Basar Oztaysi](#), Prof. Selcuk Cebi, Prof. Sezi Cevik, Prof. Cengiz Kahraman
- 9:35am **INTEGRATION OF ANALYTIC HIERARCHY PROCESS WITH OTHER MCDM METHODS: A LITERATURE REVIEW**  
» [Prof. Selcuk Cebi](#), Prof. Sezi Cevik Onar, Prof. Basar Oztaysi, Prof. Cengiz Kahraman
- 9:55am **FUZZY EXTENSIONS OF AHP AND ANP: A STATE OF THE ART LITERATURE REVIEW**  
» [Prof. Sezi Cevik](#), Prof. Basar Oztaysi, Prof. Selcuk Cebi, Prof. Cengiz Kahraman

- 10:15am **SA\_RMA\_TR8**  
Chaired by: Prof. Valerio Salomon
- 10:15am **Third-Party Logistics Service Providers in Circular Economy**  
» [Prof. Birsen Karpak](#), Prof. Ozden Bayazit, [Prof. Tacibaht Turel](#)
- 10:35am **CIRCULAR 'SUPPLIER EVALUATION AND SELECTION' USING HYBRID MCDM METHODS: CASE OF THE STEEL MANUFACTURING INDUSTRY**  
» [Prof. RAKESH VERMA](#), Mr. Ajaygopal KV, [Prof. Saroj Koul](#)
- 10:55am **A DECISION MAKING APPROACH FOR SELECTING SUSTAINABLE SUPPLIER BASED ON SPHERICAL FUZZY AHP-TOPSIS**  
» [Dr. Sezin GÜLERYÜZ](#)
- 10:15am **SA\_RMB\_TR6**  
Chaired by: Dr. Monica Garcia Melon
- 10:15am **GREEN CONSTRUCTION IN NEW COMMERCIAL BUILDINGS**  
» [Mr. Landon Lauer](#), [Mr. Dominic Irwin](#), [Mr. Hunter Smith](#), [Mr. Kellen Nerem](#), [Mr. Ryan Main](#)
- 10:35am **AHP/ANP IMPLEMENTATION FOR ADJUDICATING ENVIRONMENTAL TORT CLAIMS**  
» Ms. Paola Gómez-Priego, [Dr. Luis Bojórquez-Tapia](#)
- 10:55am **DETERMINATION OF SELECTION CRITERIA FOR WAVE ENERGY CONVERTERS**  
» [Ms. Sertap Varol](#), Mr. Hasan Suat Arslan, Dr. Irem Ucal Sari
- 11:15am **BR\_SA\_2 - Break**
- 11:30am **SA\_RMA\_MISC**  
Chaired by: Cigdem Kadaifci
- 11:30am **CRISP JUDGEMENT SCALE-BASED SENSITIVITY ANALYSIS FOR PROVIDING RELIABLE QUALITATIVE AHP/ANP USE OUTCOMES**  
» [Prof. Grzegorz Ginda](#), [Mr. Chellappa Vigneshkumar](#)



Continued from **Saturday, 17 December**

11:50am **COMBINING AHP, TOPSIS AND CONJOINT ANALYSIS TO RANK SHOPPING CENTERS IN THE LOCALITY OF MBANZA-NGUNGU, DR CONGO**

» [Prof. Ruffin-Benoît Ngoie](#), [Mr. Ossok Dibakidj](#), [Mr. Ruffin Mbaka](#), [Mr. Jean-Aimé Sakulu](#), [Dr. Don Musoni](#)

12:10pm **PARTICLE SWARM OPTIMIZATION TO SOLVE INCOMPLETE PAIRWISE COMPARISON**

» [Dr. Ririn Diar Astanti](#), Dr. The Jin Ai, Mr. Leonardo Vincent Hendrawan

11:30am **SA\_RMB\_TR2**

Chaired by: Anna Ujwary-Gil and Anna Florek

11:30am **Enhancing Police-Community Relations Via a Conflict Resolution Approach**

» Prof. Amos Guiora, [Dr. Marcel Minutolo](#), Prof. Luis Vargas, Ms. Margaret Vargas, Prof. H.J. Zoffer

11:45am **Analyzing EIA in Paraná, Brazil and California, United States with Fuzzy-Set Qualitative Comparative Analysis and the Analytical Hierarchy Process**

» [Dr. John Loomis](#), Dr. Maurício Dzedzic

12pm **APPLICATION OF THE AHP-TOPSIS-2N METHOD IN PRIORITIZING TECHNOLOGIES OF INTEREST TO THE BRAZILIAN ARMY**

» [Mr. Romullo Girardi](#), Dr. Marcos Santos

12:30pm **BR\_SA\_3 - Break**

1pm **P4 - Strategic planning and decision making challenges in Education**

Chaired by: Nina Begicevic Redjep

**Strategic planning and decision making challenges in Education**

» Nina Begicevic Redjep

2pm **BR\_SA\_4 - Break**

2:15pm **SA\_RMA\_TR 5 & 9**

Chaired by: Claudio Garuti

2:15pm **A Decision Support System for the Optimal Allocation and Distribution of COVID-19 Vaccines using Analytic Hierarchy Process (AHP) and Integer Programming (IP) models**

» [Ms. Hannah Faye Culaste](#), Mr. Noe Jay Torres, Mr. Zython Paul Lachica, Ms. Honey Glenn Lorono, Ms. Ross Fievanni Inguillo, Dr. May Anne Mata, Dr. Rhoda Namoco

2:30pm **Traditional, DEA-AHP ranking and possibilistic fuzzy DEA approach for efficiency analysis of city hospitals**

» [Dr. Songul Cinaroglu](#)

2:45pm **IoT BASED SMART CITIES EVALUATION BY CIRCULAR INTUITIONISTIC FUZZY ANALYTIC HIERARCHY PROCESS**

» [Ms. ESRA ÇAKIR](#)

2:15pm **SA\_RMB\_TR11**

Chaired by: Nigel Clark and Anna Florek

2:15pm **A NOVEL MODEL FOR PROCESS MATURITY MEASUREMENT BASED ON FUZZY ANALYTIC HIERARCHY PROCESS**

» [Ms. Elif Buyukkaya](#), Prof. Selcuk Cebi

2:35pm **Evaluating the market chances of nano-cellulose for surface absorption of heavy metals**

» [Prof. majid azizi](#), Dr. mohammad azad fallah, Mr. hasan shoja

2:55pm **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**

» [Dr. Ade Febransyah](#)



Sunday, 18 December

8am **P5 - AHP in Practice to promote Collective Decision Making**  
Chaired by: Dr. Oğuz Babüroğlu and Prof. Ilker Topcu and Ozay Ozaydin

**AHP in Practice to promote Collective Decision Making**  
» Oğuz Baburoglu, Ilker Topcu, Ozay Ozaydin

9am **BR\_SU\_1 - Break**

9:15am **SU\_RMA\_TR1**  
Chaired by: Prof. Luis Vargas

9:15am **Representations, Ratios, and Units**  
» Dr. William Wedley, Dr. Orrin Cooper, Dr. Idil Yavuz

9:35am **USING METHODS PROPPAGA AND AHP TO SOLVE A DECISION PROBLEM BETWEEN PURCHASE OF A NEW ITEM, INTERNAL RECOVERY OR EXTERNAL RECOVERY**  
» Mr. Tullio Araujo, Ms. Mariana Casella, Dr. Marcos Santos, Mr. Paulo Afonso Lopes da Silva

9:55am **An econometric model MRLM + Analytic Hierarchy Process (AHP) to select the best alternative for a real estate investment. Case: Apartment in Panama City (Panama).**  
» Prof. Miguel Camacaro, Prof. Ernesto Mock

9:15am **SU\_RMB\_TR9**  
Chaired by: Prof. Basar Oztaysi

9:15am **Analytic Hierarchy Process Based on the Magnitude of Z-Numbers**  
» Mr. Nik Muhammad Farhan Hakim Nik Badrul Alam, Dr. Ku Muhammad Naim Ku Khalif, Dr. Nor Izzati Jaini

9:30am **GROUPING REPRESENTATIVE POINTS IN AHP-FUZZYSORT WITH AGGLOMERATIVE HIERARCHICAL CLUSTERING**  
» Mr. Alvaro Labella, Mr. Diego García-Zamora, Ms. Wen He, Ms. Rosa M. Rodríguez, Prof. Luis Martínez

9:45am **INTERVAL-VALUED INTUITIONISTIC FUZZY-ANALYTIC HIERARCHY PROCESS FOR EVALUATING THE WASTES IN A PHARMACEUTICAL COMPANY**  
» Mr. Berker Aızkarasu, Dr. Özge Nalan Bilişik

10:15am **SU\_RMA\_TR8**  
Chaired by: Lirong Wei and Prof. Birsen Karpak

10:15am **Enterprise Blockchains Adoption**  
» Prof. Birsen Karpak, Dr. Deepa Iyer, Prof. Ilker Topcu

10:35am **MULTI-CRITERIA ASSESSMENT OF SPARE PARTS OF HYDRAULIC SYSTEMS**  
» Mr. Nuno Torre, Prof. Valerio Salomon

10:55am **EFFECT OF STAKEHOLDERS' BIASED JUDGMENTS ON THE RESULT OF THE GROUP DECISION MAKING**  
» Dr. Omid Hossein Zadeh, Dr. Marzieh Hajjarian, Dr. Reza Abdi

10:15am **SU\_RMB\_TR4**  
Chaired by: Shashi Bhattarai

10:15am **Multidimensional classification of women's groups in Burkina Faso with a view to providing financial and technical assistance: AHP Method Application Cases**  
» Dr. Zoinabo SAVADOGO, Dr. Frederic NIKIEMA

10:30am **STRATEGIC PRIORITIES OF INDONESIAN YOUNG ENTREPRENEURS' MOTIVATION**  
» Dr. Jozef Raco, Prof. James V. Krejci, Mr. Yulius Christian Raton, Mr. Ronaldo F Rottie, Mr. Tryadi Wilhelmus Tumewu, Dr. Jeanne Ellyawatis, Prof. Silvy L Mandey, Dr. Jeanette Ety Magdalena Soputan



Continued from **Sunday, 18 December**

- 10:45am **PRIORITIZATION OF ENABLING TECHNOLOGIES THROUGHOUT DIGITAL TRANSFORMATION IN SHIP MANAGEMENT COMPANIES**  
» [Mr. Muhittin Orhan](#), Prof. Metin Celik
- 11:15am **BR\_SU\_2 - Break**
- 11:30am **SU\_RMA\_TR3**  
Chaired by: Prof. Ilker Topcu
- 11:30am **AN INTEGRATED MCDM MODEL FOR CLIMATE-SMART AGRICULTURE**  
» [Ms. Ida Gjergji](#), Prof. Ilker Topcu
- 11:50am **EVALUATION OF COMPANIES IN THE MINING AND STEEL INDUSTRY SECTOR USING THE MULTI-CRITERIA DECISION SUPPORT METHOD AHP-TOPSIS-2N**  
» Mr. Felipe Fortuna Lucas, [Ms. ANA AMÉLIA PASTOR MENDONCA DA SILVA](#), Dr. Carlos Francisco Simões Gomes, Dr. Marcos Santos
- 12:10pm **AN INTEGRATED MCDM APPLICATION FOR RANKING OF SMART CITIES**  
» [Mr. Mehmet Güneş](#), Prof. Ilker Topcu
- 11:30am **SU\_RMA\_TR 6 & 8**  
Chaired by: Ms. Hannia Gonzalez-Urango
- 11:30am **A multi-method approach to study the determinants of academic performance of secondary students: the case of Cartagena de Indias (Colombia)**  
» [Ms. Hannia Gonzalez-Urango](#), Ms. Rosaura Arrieta, Mr. Daniel Guerrero Agámez
- 11:50am **EVALUATION OF OPTIONS FOR FOOD WASTE MANAGEMENT IN METRO MANILA USING AHP**  
» [Ms. Jahziel Lantin](#), Dr. Michael Angelo Promentilla

- 12:10pm **EVALUATION OF METAVERSE RISKS FOR SUPPLY CHAIN SUSTAINABILITY USING SPHERICAL FUZZY AHP**  
» [Dr. Ayça Maden](#)
- 12:30pm **SU\_RMB\_TR2**  
Chaired by: Shashi Bhattarai
- 12:30pm **CONSOLIDATION OF CITIZENS' OPINIONS WITH THE AHP FOR PDCA CYCLE IN LOCAL GOVERNMENTS**  
» [Mr. Yoichi Iida](#)
- 12:50pm **Tourism development of the Siau Tagulandang Biaro Islands' Regency using AHP and Buckley's Fuzzy-AHP**  
» [Dr. Jozef Raco](#), Prof. James V. Krejci, Mr. Yulius Christian Raton, Mr. Ronaldo F Rottie, Mr. Tryadi Wilhelmus Tumewu, Mr. Denny Kondo
- 1:10pm **FACTORS AFFECTING THE SUCCESS OF AIR-RAIL INTEGRATION IN THAILAND**  
» Ms. Benyapa Suwannarat, Mr. Chanuwat Nitikittiwat, Ms. Nitchamol Samittivate, [Dr. Waralee Rattanakijsumton](#)
- 1:30pm **Closing Ceremony**  
Chaired by: Prof. Luis Vargas and Rozann Saaty