TEXTILE EMBEDDED SENSORS MATRIX FOR PRESSURE SENSING AND MONITORING APPLICATIONS FOR THE PRESSURE ULCER PREVENTION, Susana Pereira, Ricardo Simoes, Joana Fonseca, Joana Almeida and Ricardo Carvalho

DESIGN AND SIMULATION OF A CMOS SLEW-RATE ENHANCED OTA TO DRIVE HEAVY CAPACITIVE LOADS, Luis Miguel Carvalho Freitas, F. Morgado-Dias, Guy Meynants and Adi Xhakoni

ON-CHIP DIGITAL TEMPERATURE SENSOR FOR CMOS IMAGE SENSOR, Rúben Gomes, Paulo Franco and F. Morgado-Dias

**ES-Smart Cities** 

Chair: Yuichi Kado

Room: A2

NETWORK IMPACT OF RESIDENTIAL ENERGY MANAGEMENT SYSTEMS AT CITY SCALE, Pedro Miguel, Luís Neves and António Gomes Martins

MQTT SERVICE BROKER FOR ENABLING THE INTEROPERABILITY OF SMART CITY SYSTEMS, Anatolijs Zabasta, Nadezhda Kunicina, Kaspars Kondratjevs, Antons Patlins, Leonids Ribickis and Jerker Delsing

SUSTAINABLE PAVEMENT ENABLE TO PRODUCE ELECTRICITY FOR ROAD LIGHTING USING GREEN ENERGY, Antons Patlins, Andrii Hnatov, Shchasiana Arhun, Anatolijs Zabasta, Nadezhda Kunicina and Leonids Rihickis

FORECASTING THE USAGE OF APPLIANCES OF SHARED USE: AN ANALY-SIS OF SIMPLICITY OVER COMPLEXITY, Florian Desraches, Oihane Kamara-Esteban, Diego Casado-Mansilla and Cruz E. Borges

# P5 - Applying Psychology to personal development

Chair: Fátima Lobo

Room: P

EDUCATION AND ATTACHMENT: DROPPING OUT SCHOOL FAILURE, Rosa Castro and Dora Isabel Pereira

SPIN PROJECT - A SOUTHERN EUROPEAN APPROACH TO THERAPEUTIC LIFE STORY WORK, Margarida Marques

PERSONALIZING PAPER-AND-PENCIL TRAINING FOR COGNITIVE REHA-BILITATION: A FEASIBILITY STUDY WITH A WEB-BASED TASK GENERA-TOR, Ana Lúcia Faria and Sergi Bermúdez i Badia

WELCOME ONBOARD THIS FLIGHT, Ana Maria Vieira

\_\_\_\_\_

16:30 - 17:50 <u>Parallel Sessions</u>

# **E2-Electronic Applications**

Chair: Susana Pereira

Room: A1

A SMART WIRELESS SYSTEM FOR MODELING VISUAL SEARCHING BE-HAVIOR AND ASSESSING REACTION TIME IN SPORTS AND REHABILITA-TION ACTIVITIES, Ben Ali Boubaker and Éric Duqas

A SMART WIRELESS SYSTEM FOR MODELING VISUAL SEARCHING BE-HAVIOR AND ASSESSING REACTION TIME IN SPORTS AND REHABILITA-TION ACTIVITIES, Ben Ali Boubaker and Éric Dugas

A VIDEO SURVEILLANCE SYSTEM FOR FIRE AND FLASH FLOODS DETEC-

NOSLEEP: LOW COST PROTOTYPE FOR DRIVER FATIGUE DETECTION, Fabio Dantas and Tiago Meireles

IMAGE DENOISE FPGA IMPLEMENTATION USING A MOVING AVERAGE FILTER WITH CONTOUR DETECTION, Ricardo Jardim and F. Morgadobias

#### ES2-Management and Storage

Chair: Lucas Pereira

Room: A2

AN OVERVIEW OF THE SOLAR PV POLICY IN THE REGION OF MADEIRA, Daniel Pestana, Sandy Rodrigues and F. Morgado-Dias

THE DUCK CURVE CHARACTERISTIC AND STORAGE REQUIREMENTS FOR GREENING THE ISLAND OF PORTO SANTO, Roham Torabi, Alvaro Gomes and F. Morgado Dias

AUTONOMOUS DISTRIBUTED POWER NETWORK CONSISTING OF THREE-PORT POWER ROUTERS, Yuichi Kado

POWER INADEQUACY, THE THORN ON ECONOMIC GROWTH OF NIGE-RIA, W. S Ebhota and P. Y Tabakov

# P6 - Applied Psychology

Chair: Dora Pereira

Room: P

APPLIED PSYCHOLOGY AND COMPLEX SYSTEMS: COMMUNICATING SPECIALIZED KNOWLEDGE TO A NON SPECIALIZED AUDIENCE

\*\*\*\*\*\*\*\*\*\*\*

#### 20:00 Conference Dinner

\*\*\*\*\*\*\*\*\*\*

#### WEDNESDAY, 11th of JULY

#### 10:00 - 11:00 - Plenary session

Stability and Bifurcation in Discrete Dynamical Systems, Application to Competition Population Models

Prof. Rafael Luís

Room: A1+A2

\*\*\*\*\*\*\*\*\*\*\*\*\*

11:00 - 11:30 Coffee Break

\*\*\*\*\*\*\*\*\*\*\*

#### 11:30 - 12:00 Poster Sessions

Room: Coffee Break Room

12:00 - 12:30 Awards and Closing Ceremony

12.00 12., jo riwaras ana crossing cereme

12:30 - 14:00 Break

14:30 - 18:00 Social Event



# **Institute of Knowledge and Development**

# International Conference on Knowledge Interplay for the Future KIF18

**Funchal, 9 - 11 July 2018** 

- International Conference on Energy and Sustainability in Small Developing Economies - ES2DE18
- International Conference on Biomedical Engineering and Applications - ICBEA18
- International Conference on Mathematical Applications -ICMA18
- International Conference on Applied Psychology and Human Behaviour - ICAP18

# **PROGRAM**

#### MONDAY, 9th of JULY

### 10:00 - 11:00 - Keynote Talk

Paraconsistent Annotated Logic Programs and its Application to Intelligent Control/Safety Verification - Prof. Kazumi NAKAMATSU

Room: A1+A2
************
11:00 - 11:30 Coffee Break
***********

# 11:30 - 12:50 Parallel Sessions

## **B1-Artificial Intelligence Applications**

Chair: Antonio Ravelo

Room: A1

PROTOTYPE-BASED CLASSIFIER FOR AUTOMATIC DIAGNOSIS OF DE-PRESSIVE MOOD, Stephane Cholet and Helene Paugam-Moisy

APPLICATIONS OF ARTIFICIAL NEURAL NETWORKS IN PROCESS CON-TROL APPLICATIONS: A REVIEW, Alexander Kramer and F. Morgado-Dias

CONFIGURABLE N-FOLD HARDWARE ARCHITECTURE FOR CONVOLU-TIONAL NEURAL NETWORKS, Dario Baptista, Leonel Sousa and F. Morgado-Dias

# P1-Group discussion: Sharing Experiences on Applied Psychology

Chair: Dora Pereira Room: P \*\*\*\*\*\*\*\*\*\*\* 12:50 - 14:20 Lunch Break \*\*\*\*\*\*\*\*\*\*\*

#### 14:20 - 16:00 Parallel Sessions

#### **B2-Biomedical Applications**

Chair: Antonio Ravelo

Room: A1

SLEEP QUALITY ANALYSIS WITH CARDIOPULMONARY COUPLING, Fábio Mendonça, Sheikh Mostafa, F. Morgado-Dias and Antonio Ravelo-

AUTOMATIC CALIBRATION OF THE DECEIVED NON LOCAL MEANS FILTER FOR IMPROVING THE SEGMENTATION OF CELLS IN FLUORES-CENCE BASED MICROSCOPY, Saul Ramirez, Joel Barrantes, Joel Schuster, Mauro Mendez and Jakub Beaera

SCATTERING BEHAVIOR ANALYSIS FOR UWB ANTENNA IN THE VICINI-TY OF HETEROGENEOUS BREAST TISSUES, Khondker Jahid Reza, Sheikh Shanawaz Mostafa, Mahamudul Hassan Milon, Sabira Khatun and Mohd Faizal Jamlos

HYBRID BRAIN COMPUTER INTERFACE HYBRID-BCI FOR MOVEMENT CONTROL OF UPPER LIMB PROSTHESES, Heba Aly, Sherin Youssef and Cherine Fathy

### P2 -Workshop -Therapeutic Life Stories - I

Room: P \*\*\*\*\*\*\*\*\*\* 16:00 - 16:30 Coffee Break \*\*\*\*\*\*\*\*\*\*

Chair: Margarida Marques

## 16:30 - 17:50 Parallel Sessions

#### Mathematical **MA1-Optimization** and Theory

Chair: Krzysztof Ostaszewski

Room: A1

EFFICIENT USE OF PARALLEL PRNGS ON HETEROGENEOUS SERVERS, André pereira, António Onofre and Alberto Proenca

AN APPROACH OF NON-CYCLIC NURSE SCHEDULING PROBLEM, Svetlana Simić, Dragan Simić, Dragana Milutinović and Svetislav d.

FAKE P-VALUES AND MENDEL VARIABLES: TESTING UNIFORMITY AND INDEPENDENCE, Maria de Fátima Brilhante, Sandra Mendonça, Dinis Pestana, Maria Luísa Rocha, Fernando Sequeira and Sílvio Velosa

SOME KY FAN TYPE INEQUALITIES ON TIME SCALES, Cristian Dinu, Daniela Danciulescu and Alexandru Tuqui

# P3 - Workshop-Therapeutic Life Stories- II

Chair: Margarida Marques

Room: P \*\*\*\*\*\*\*\*\*\*\*\*\*

# 18:00 - 19:00 Welcome Cocktail

**Town Hall Honors Room** \*\*\*\*\*\*\*\*

TUESDAY, 10th of JULY

#### 10:00 - 11:00 - Keynote Talk

Advanced Mathematics for Designing IoT System

Prof. Ari AHARARI

Room: A1+A2 \*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*

#### 11:30 - 12:50 Parallel Sessions

**MA2-Modelling** 

Chair: Alberto Proenca

11:00 - 11:30 Coffee Break

Room: A1

A NEURAL NETWORK BASED APPROACH FOR APPROXIMATING REAL ROOTS OF POLYNOMIALS, Diogo Freitas, Luiz Guerreiro Lopes and F. Morgado-Dias

COMPARING MODEL PERFORMANCES APPLIED TO FALL DETEC-TION, Samad Barri Khojasteh, José Ramón Villar, Enrique de la Cal, Víctor M. González and Camelia Chira

MODELS FOR OPTIMIZATION DECISION OF CAPITAL AND INVEST-MENT STRATEGY OF LIFE INSURER WITH STOCHASTIC ASSETS AND LIABILITIES, Hong Mao and Krzysztof Ostaszewski

THE ORIGIN-DESTINATION MATRIX ESTIMATION FOR LARGE TRANSPORTATION MODELS IN AN UNCONGASTED NETWORK, František Kolovský, Jan Ježek and Ivana Kolingerová

# ES1-Management and Storage

Chair: Anatolijs Zabasta

Room: A2

DISTRIBUTED ELECTRIC ENERGY STORAGE: WHICH PERSPEC-TIVE?, José Gonçalves, Luís Neves and António Gomes Martins

STUDY OF A WATER-ENERGY INTEGRATED SYSTEM: CHALLENGES OF PROTOTYPING, Ana Silva, Fernando Santos, António Espírito-Santo, José Páscoa Marques and Cristina Fael

ADDRESSING THE DESIGN STAGES OF AN UNDERGROUND ENER-GY HARVESTING SYSTEM FROM THE UNCONVENTIONAL SOURCE OF STREET MOVING VEHICLES, Yazan Okkeh, Bashar Masoud and

ELECTRO MOBILITY IN PANAMA: A REVIEW, Jessica Guevara-Cedeño, Jairo Aguilar, Roham Torabi and Aranzazu Berbey-Alvarez

# P4 - Applying Psychology in professional development

Chair: Ana Lúcia Faria

Room: P

A FRAMEWORK FOR STAKEHOLDER ENGAGEMENT FOR DEVEL-OPING SUSTAINABLE BEHAVIOUR RESEARCH: A LAKE VICTORIA CASE STUDY, Karlijn van den Broek

COMPASSION FATIGUE AND SATISFACTION FOR COMPASSION: THREATS TO THE QUALITY OF LIFE IN PORTUGUESE VETERINAR-IES. Fátima Lobo

COLLABORATIVE LEARNING: LEADERS' SELECTION METHOD AND TEAM PERFORMANCE, Dulce Pacheco and Luisa Soares

EVOLUTION OF CULTURAL INTELLIGENCE IN STUDENTS WORK-ING IN MULTI-NATIONAL TEAMS: A CASE-STUDY, Dulce Pacheco and Scott Stevens

THE IMPACT OF INNOVATION AND ENTREPRENEURSHIP ON COMPETITIVENESS, Cristina Fernandes, Pedro Veiga and João Ferreira

\*\*\*\*\*\*\*\*\*\*\*\* 12:50 - 14:20 Lunch Break \*\*\*\*\*\*\*\*\*\*

# 14:20 - 15:40 Parallel Sessions

**E1-Electronic Applications** 

Chair: Tiago Meireles

Room: A1