

Final Program of the MCCSIS 2018
Multi Conference on Computer Science and Information Systems

Conference Sessions:

e-Learning 2018

ICT, Society and Human Beings 2018

Web Based Communities and Social Media 2018

Connected Smart Cities 2018

e-Health 2018

Tuesday, 17th July 2018

08:00-19:15 Welcome Desk (Room Filadelfia)

**09:45-10:00 Session O – Opening Session
(Room Buenos Aires)**

Profs. Miguel Baptista Nunes and Pedro Isaias

**10:00-11:00 Session KL1 – Keynote Presentation
(Room Buenos Aires)**

EMOTIONS AND INCLUSION IN E-LEARNING: STUDENT MODELLING AND ADAPTIVE E-TRAINING
By Rosa M. Carro, Head of the Department of Computer Engineering, Universidad Autónoma de Madrid, Spain

11:00-11:30 Coffee Break

**11:30-12:55 Session FSRP 17.1
EL Organisational Strategy and Management Issues
(Room Buenos Aires)
Chair: Rdouan Faizi**

THE COLLIDING VIRTUAL AND PHYSICAL ACADEMIC WORKING ENVIRONMENT (F095)
Hilary Collins
ACADEMIC IDENTITIES AND THE DIGITAL SELF? A CROSS CULTURAL STUDY OF DIGITISATION IN HIGHER EDUCATION TEACHING (S029)
Hayley Glover, Frances Myers and Hilary Collins
MONITOR FOR ICT INTEGRATION IN FLEMISH EDUCATION (MICTIVO): THE THEORETICAL AND METHODOLOGICAL FRAMEWORK (S092)
Pieter Jan Heymans, Eline Godaert, Jan Elen, Johan van Braak and Katie Goeman
THE COURSERA CASE AS THE PREFIGURATION OF THE ONGOING CHANGES ON THE MOOC PLATFORMS (R065)
François Acquatella, Valérie Fernandez and Thomas Houy

**11:30-13:00 Session FSP 17.2
ICT and effects on humans // Perspectives on ICT
(Room Santo Domingo)
Chair: Virve Siirak**

DESCRIPTIVE MODELLING OF TEAM TROUBLESHOOTING IN NUCLEAR DOMAIN (F020)
Jari Laarni
MANAGING ICT PROFESSIONALS' WORK STRESS THROUGH PSYCHOLOGICAL AWARENESS (S024)
Eugene Kaluzniacky
THE EFFECT OF ATTITUDE TOWARD CHANGE AND COMPUTER SELF-EFFICACY ON THE ERP ADOPTION (S079)
Kee-Young Kwahk
INFLUENCE OF ORGANIZATIONAL CULTURE IN INFORMATION SYSTEMS PROJECTS IN A SOUTH AFRICAN BANK (S032)
Ray M Kekwaletswe and Tsholofelo Ncube

12:00-13:00 Session KL2 – Keynote Presentation
(Room Habana)

EMPATHY, CREATIVITY, TECHNOLOGICAL INNOVATION: KEYS IN THE PATH OF DESIGNING HEALTHCARE BEYOND 2020

By A/ Professor George (Giorgos) Kontaxakis, Department of Electronic Engineering, Information Processing and Telecommunications Center, Universidad Politécnica de Madrid (UPM), Spain

13:00-14:30 Lunch Break

14:30-16:15 Session FRP 17.3

Continuous Professional Development (CPD) for Educational and Training Staff // Distance Learning

(Room Buenos Aires)

Chair: Hilary Collins

A TRAINING PROGRAMME TO SUPPORT AQUASMART PROJECT EXPLOITATION (F102)

Elsa Marcelino-Jesus, Andreia Artifice, Joao Sarraipa, Gary McManus and Fernando Luis-Ferreira

MOOCS AND TEACHER PROFESSIONAL DEVELOPMENT: A CASE STUDY ON TEACHERS' VIEWS AND PERCEPTIONS (F152)

Nikolaos Koukis and Athanassios Jimoyiannis

DETERMINING THE EFFECTIVENESS OF A MASSIVE OPEN ONLINE COURSE IN DATA SCIENCE FOR HEALTH (F038)

Abrar Alturkistani, Josip Car, Azeem Majeed, David Brindley, Glenn Wells and Edward Meinert

ISSUES THAT REVOLVE AROUND THE CONCEPTS OF DISTANCE EDUCATION AND E-LEARNING (R148)

Maria Georgiou

14:30-15:15 Special Talk

(Room Santo Domingo)

21ST CENTURY ICT PERSONNEL - HUMANS OR HUMAN BEINGS?

Eugene Kaluzniacky

14:30-16:20 Session FRP 17.4

eHealth to improve Quality and Patient Safety // Other

(Room Habana)

Chair: Duarte Sequeira

EVALUATION OF SATISFACTION AND USABILITY OF A CLINICAL DECISION SUPPORT SYSTEM (CDSS) TARGETED FOR EARLY OBSTETRIC RISK ASSESSMENT AND PATIENT FOLLOW-UP (F034)

Ever A. Torres Silva, Ivan F. Luna Gomez, Jose F. Florez Arango, Jack W. Smith, Sebastian U. Ocampo and Junior E. Hidalgo

ELDERLY PATIENTS WITH COGNITIVE IMPAIRMENT: APPLICATION OF A NEW SERVICE AND ORGANIZATIONAL MODEL SUPPORTED BY DIGITAL SOLUTIONS (F061)

Pietro Davide Trimarchi, Paolo Locatelli, Federica Cirilli, Emanuele Tomasini, Pedro A. Moreno and Rodrigo Pérez-Rodríguez

ASSESSMENT OF RISK FOR ALZHEIMER PATIENTS BY MONITORING HEARTBEAT AND IDENTIFYING FALLS (S067)

Fernando Luís-Ferreira, Daniel Rodrigues, David Pereira, João Sarraipa and Ricardo Goncalves

ALGORITHMS ARE THE NEW DRUGS? REFLECTIONS FOR A CULTURE OF IMPACT ASSESSMENT AND VIGILANCE (R077)

Hugh Harvey and Federico Cabitza

THE ACTIVITY RECOGNITION: ADVANTAGEOUS BUT CHALLENGING! (R064)

Chaima Bouali, Abderrahim Tahiri and Olivier Habert

15:30-16:30 Session FP 17.5

Data and Software Applications in Smart Cities

(Room Santo Domingo)

Chair: Diego López-de-Ipiña

DEVELOPMENT OF A LOW-COST SMART PARKING SOLUTION FOR SMART CITIES (F023)

João Fernandes, Carlos Serrão and Nuno Garrido

DATA ORIENTED ALGORITHM FOR REAL-TIME ESTIMATION OF FLOW RATES AND FLOW DIRECTIONS IN A WATER DISTRIBUTION NETWORK (F031)

Christophe Dumora, David Auber, Jérémie Bigot, Vincent Couallier and Cyril Leclerc

16:30-17:00 Coffee Break

17:00-19:10 Session FSRP 17.6
e-Learning Delivery Issues // Web 2.0 Applications // Other
(Room Buenos Aires)
Chair: Hayley Glover

LISTENING AND LEARNING? PRIVILEGING THE STUDENT VOICE IN E-LEARNING DISCOURSES OF WITHDRAWAL: A QUALITATIVE ANALYSIS (F086)
Hayley Glover, Frances Myers, Bronagh Power, Carey Stephens and Jane Hardwick

EFFECTS OF ONLINE EDUCATION ON ENCODING AND DECODING PROCESS OF STUDENTS AND TEACHERS (F085)
Riaz Ahmed

INVESTIGATING THE ROLE OF SOCIAL NETWORKS IN ENHANCING STUDENTS' LEARNING EXPERIENCE: FACEBOOK AS A CASE STUDY (S024)
Rdouan Faizi and Sanaa El Fkihi

THE INTERACTIVE SURVEYING INSTRUCTOR (ISI) FOR TEACHING OPTICAL-MECHANICAL INSTRUMENT READINGS IN SURVEYING ENGINEERING (S033)
Jaime Garbanzo León and Gustavo Lara Morales

SEMANTIC WEB AND QUESTION GENERATION: AN OVERVIEW OF THE STATE OF THE ART (R098)
Andreas Papasalouros and Maria Chatzigiannakou

CHARTING NEW TERRITORIES: WADING IN THE E-LEARNING WATERS AT A PROMINENT UNIVERSITY IN JAMAICA- CASE STUDY EXPLORING THE FIRST FULLY ONLINE PROGRAMME OVER THE PERIOD 2013-2017 (R020)
Kamla S. Anderson

17:00-19:00 Tutorial
(Room Santo Domingo)

THE COASTLINE PARADOX AND THE PERILS OF MAPPING A CURRICULUM (T113)
Phil Blyth and MaryLeigh Moore

17:00-18:05 Session SRPD 17.7

Telemedicine
(Room Habana)
Chair: Mário Macedo

TELE-MICROSCOPY SYSTEM BASED ON MOBILE TELEPHONE FOR DISTANCE DIAGNOSIS OF TUBERCULOSIS IN REMOTE AREAS OF PARAGUAY (S031)
Virgilio Cane, Margarita Samudio, Juan García, Natalie Weiler and Xabier Basogain

IMPACTS PROMOTED BY TELEHEALTH SOFTWARE IN SERVICES DEVELOPED BY HEALTH PROFESSIONALS IN BRAZIL (R039)
Isabele Magaldi A. de Freitas, Nicolás V. R. Veras, Custódio L. B. Guerra Neto, Antônio Higor F. de Moraes and Ricardo Alexsandro de M. Valentim

TELEMEDICINE MANAGEMENT OF OLDER CARDIAC PATIENTS IN IRELAND - WORKFORCE TRANSFORMATION IN A PUBLIC HEALTH CARE SYSTEM: LESSONS TO BE LEARNT (D078)
Yohanca Diaz and Lucia Carragher

Wednesday, 18th July 2018

08:00-15:45 Welcome Desk (Room Filadelfia)

08:30-11:00 Session FP 18.1

e-Learning Case Studies

(Room América)

Chair: *Bertil Marques*

INFLUENCE OF VIRTUAL SIMULATOR ON THE CHANGE OF VIEWS ON BEHAVIOUR IN TRAFFIC. CASE STUDY (F090)

Jovica Vasiljevic, Goran Jovanov, Radovan Radovanovic, Nemanja Jovanov and Djordje Vranjes

ASSESSING THE IMPACT OF STUDENTS' ACTIVITIES IN E-CLASSES ON LEARNING OUTCOMES: A DATA MINING APPROACH (F099)

Lan Umek, Nina Tomažević, Aleksander Aristovnik and Damijana Keržič

ONLINE VS. CLASSROOM STUDENTS IN AN UNDERGRADUATE UNIVERSITY DEGREE (F019)

Nello Scarabottolo

MANUEARNING: A KNOWLEDGE-BASED SYSTEM TO ENABLE THE CONTINUOUS TRAINING OF WORKERS IN THE MANUFACTURING FIELD (F149)

Enrico G. Caldarola, Gianfranco E. Modoni and Marco Sacco

E-LEARNING SYSTEM FOR ELECTRONIC CIRCUIT CONSTRUCTION USING HANDWRITING RECOGNITION AND MIXED REALITY TECHNIQUES (F168)

Atsushi Takemura

08:50-09:50 Session SP 18.2

Web Based Communities

(Room Atlântico)

Chair: *Salam Abdallah*

REDUCING EGOCENTRIC BIAS BY PERSPECTIVE SHIFTING IN VIRTUAL WORLD WITH DIFFERENT CONSTRUAL-LEVEL DISTANCE BETWEEN SELF AND OTHER (S038)

Aekyoung Um, Young June Sah and Daeho Lee

JUNIORTUKKIE APP: A COMMUNICATION APPROACH TO ATTRACT QUALITY STUDENTS FOR THE UNIVERSITY OF PRETORIA (S028)

Martie Kilian

SOCIO-TECHNICAL SELF-DEVELOPMENT USING A MICROSERVICE ARCHITECTURE (S050)

Johann Sell and Niels Pinkwart

09:00-11:00 Session FP 18.3

Case Studies

(Room Azores)

Chair: *Qing Zeng*

E-HEALTH DEPLOYMENT BUSINESS MODEL TELE-EXPERTISE CASE STUDY (F022)

Angela Martin, Corentin Canu, Gabriële Breda and Camille Jean

"GDPR" IMPACT ON HEALTH DATA EXCHANGE IN EUROPEAN DIGITAL ENVIRONMENT (F058)

Paola Aurucci, Eleonora Ciceri, Mariet Nouri Janian, Andrea Micheletti and Alberto Sanna

HOW PORTUGAL ACHIEVE THE DEMATERIALIZATION OF THE MEDICAL CERTIFICATE FOR DRIVING LICENSE (F083)

Rui Pereira, Alfredo Ramalho, Arlete Monteiro, Cristiano Marques and Henrique Martins

SHEDDING LIGHT OVER THE PORTUGUESE HEALTH IT ARCHITECTURE (F093)

Joana Cunha and Filipe Mealha

10:00-11:00 Session FP 18.4

User-Centric Smart Cities

(Room Atlântico)

Chair: *Miguel Baptista Nunes*

EMPOWERING CITIZENS INTO CO-CREATORS OF DEMAND-DRIVEN PUBLIC SERVICES (F038)

Diego López-de-Ipiña, Pauli Misikangas, Mikel Emaldi, Unai Aguilera, Dejan Dragic and Sara Sillaurren

IDENTIFYING PROBLEMS FOR THE PLANNING AND DECISION MAKING OF A SMART CITY IN CHINA: PREPARATION FOR THE 13TH FIVE YEAR PLAN (F036)

Ning Zhang, Miguel Baptista Nunes and Lijun Wang

11:00-11:30 Coffee Break

11:30-13:00 Session FPD 18.5

Learning Theories and Approaches for e-learning

(Room América)

Chair: Miguel Baptista Nunes

AN EMPIRICAL STUDY ON THE IMPACT OF USING AN ADAPTIVE E-LEARNING ENVIRONMENT BASED ON LEARNER'S PERSONALITY AND EMOTION (F051)

Somayeh Fatahi and Shakiba Moradian

PROCESS-BASED ASSISTANCE METHOD FOR LEARNER ACADEMIC ACHIEVEMENT (F173)

Joffrey Leblay, Mourad Rabah, Ronan Champagnat and Samuel Nowakowski

RECOMMENDER SYSTEM: COLLABORATIVE FILTERING OF E-LEARNING RESOURCES (D054)

Baba Mbaye

11:30-13:00 Session FP 18.6

Life environment and ICT

(Room Atlántico)

Chair: Eugene Kaluzniacky

POLITICAL ANALYTICS FOR PUBLIC ELECTRONIC PROPOSAL DELIBERATION AT MUNICIPAL LEVEL (F023)

Georgios Drakopoulos, Vasilis Triantafyllou and John Christodouloupoulos

IDENTIFICATION OF SERIOUS GAMES FOR MUSEUM'S EDUCATIONAL ROLES: A CRITICAL LITERATURE REVIEW (F069)

Meng Wang and Miguel Baptista Nunes

ESTABLISHING A DIGITAL MEMORY APPLICATION MODEL FROM AN INFORMATION SCIENCE

PERSPECTIVE: A SYSTEMATIC LITERATURE REVIEW (F082)

Tingyu Luo, Miguel Baptista Nunes and Jiazheng Liang

11:30-13:10 Session FSP 18.7

IT and Patient Care

(Room Azores)

Chair: Angela Martin

MODELING OF THE GEMA: A NOVEL WEB SYSTEM FOR MANAGEMENT OF COLLABORATIVE CARE IN MENTAL HEALTH (F040)

Hugo Granjeiro Soares Fontes, Cefas Rodrigues Freire, Emerson Arcoverde Nunes, José Arilton Pereira Filho,

Hugo Saily Moura Bezerra and Ricardo Alexsandro de Medeiros Valentim

FEATURES OF PARENTS' DIFFICULTIES IN USING TECHNOLOGIES TO MANAGE DIABETES IN CHILDREN AND ADOLESCENTS (F047)

Wala'a Barifah, Bill Davey and Vince Bruno

SHARING AND COLLABORATING WITH THE END-USERS AROUND THE ROBOT EXTENTION PARADIGM.

USING ROBOTS AND COMPUTERS BY OLDER PEOPLE WITH DEMENTIA (S026)

Dimitri Delacroix, Rénaud Gaboriau, Sophie Sakka, Laurent Billonnet and Nicolas Couégnas

UNDERSTANDING CHILDREN AND PARENTS' USE OF ICT FOR CHRONIC DISEASE MANAGEMENT: A REVIEW OF THE LITERATURE (S029)

Wala'a Barifah, Bill Davey and Vince Bruno

13:00 – 14:30 Lunch Break

14:30-15:30 Session KL3 – Keynote Presentation

(Room América)

CAN THE QUALITY OF MATERIALS REALLY BE MEASURED BEFORE THEY ARE USED? HOW CAN WE KNOW IF AN EDUCATIONAL MATERIAL IS OF QUALITY BEFORE IT IS USED?

By Ana Fernández-Pampillón Cesteros, Professor, Universidad Complutense de Madrid, Spain

14:30-15:40 Session FSP 18.8

Mobile Applications

(Room Azores)

Chair: Mário Macedo

SICO MOBILE – THE APP THAT SUPPORTS MOBILE DEATH CERTIFICATION IN PORTUGAL (F086)

Rui Pereira, Paulo Nogueira, Arlete Monteiro, Cristiano Marques and Henrique Martins

UNOBTRUSIVE SYSTEM FOR THE DETECTION OF MENTAL FOCUS DEPLETION (S035)

John Gialelis, Panos Pavlou, Chris Panagiotou, Stavros Koubias, Nuno Pombo and Nuno Garcia

M-HEALTH APPLICATION INTERFACE DESIGN FOR SYMPTOM CHECKING (S076)

Christopher Copeland, Patricia Morreale, and J. Jenny Li

15:45 – Conference Tour and Dinner

Thursday, 19th July 2018

08:15-13:00 Welcome Desk (Room Filadelfia)

08:40-11:00 Session FSRP 19.1
e-Learning Pedagogical Strategies // Innovations in e-Assessment // Other
(Room América)

Chair: Phil Blyth

AN ANALYSIS OF EXCHANGES IN CHINESE SOCIAL MEDIA. ARE SOCIAL NETWORKING SITES CONTRIBUTING TO CHEATING? (F144)

Andrew D. Madden, Ting Yu Luo and Miguel Baptista Nunes

MULTIPLE CHOICE QUESTIONS: ANSWERING CORRECTLY AND KNOWING THE ANSWER (F088)

Peter McKenna

INVESTIGATING THE ROLE OF BIOMETRICS IN EDUCATION – THE USE OF SENSOR DATA IN COLLABORATIVE LEARNING (F185)

Georgios A. Dafoulas, Cristiano Cardoso Maia, Jerome Samuels Clarke, Almaas Ali and Juan Augusto

HOW PEDAGOGICAL DESIGN OF TECHNOLOGY-ENHANCED ACADEMIC COURSE PROMOTES LISTENING TO STUDENT VOICE AND REFLECTING ON STUDENTS' PERCEIVED LEARNING? (S060)

Orit Avdiel, Ina Blau and Tamar Shamir-Inbal

MOBILE PROBABILITY AND STATISTICS COURSEWARE REFLECTIONS (R018)

Alisa Izumi

ORGANIZING OF INTERNATIONAL “KANGAROO” COMPETITION IN ALBANIA WITH PERSONALIZED ANSWER SHEETS AND ASSESSMENT BY SCANNER (R039)

Romeo Teneqexhi, Loreta Kuneshka and Adrian Naço

09:00-11:00 Session FSP 19.2
Globalization and ICT // Virtual Environment // Other
(Room Atlântico)

Chair: Jari Laarni

CONTINGENCY AND ACTIVITY FRAMEWORK FOR BUSINESS INTELLIGENCE IN FINANCIAL BANKING ENVIRONMENT (F047)

Tshegofatso Lesole and Ray M Kekwaletswe

AN INVESTIGATION OF THE USE OF VR BOOKS TO RESOLVE DIFFICULTIES WITH ACCESS AND READING OF CHINESE ANCIENT BOOKS (F062)

Ning Zhang, Miguel Baptista Nunes and Junyang Li

EXPLORING THE IMPLICATIONS OF DIGITIZATION IN THE POST-DIGITAL ERA (S031)

Arturo Serrano-Santoyo and Mayer Rainiero Cabrera-Flores

ACCESS TO USER'S DATA IN AN ADAPTABLE APPLICATION (S029)

Maritzol Tenemaza, Angélica de Antonio, Jaime Ramirez and Sandra Gutiérrez

SPIRITUAL INTELLIGENCE FOR ICT PERSONNEL – THE TIME HAS COME (S060)

Eugene Kaluzniacky

09:30-11:00 Special Session
(Room Azores)

TOWARDS INTERNACIONAL FUNDED PROJECTS?

Mário Macedo, Universidade Atlântica, Portugal

11:00-11:30 Coffee Break

11:30-12:50 Session FSP 19.3
e-Learning Models
(Room América)

Chair: Georgios Dafoulas

IMPLEMENTATION OF COMPUTER GAMES ELEMENTS INTO THE VIRTUAL EDUCATIONAL ENVIRONMENT (F142)

Iryna Vereitina and Yurii Baidak

APPLYING THE QUANTITATIVE EVALUATION FRAMEWORK MODEL FOR ENSURING THE MOOC QUALITY (F176)

Bertil P. Marques, Ana Barata, Piedade Carvalho, Ana Silva, Patrícia Queirós and Paula Escudeiro

RESEARCH ON MODERN METHODS OF ADOPTING AND IMPLEMENTING E-LEARNING WITHIN COMPANIES (S159)

Anca Alexandra Purcărea, Mirona Popescu and Simona Gheorghe

11:30-12:40 Session FPP 19.4

Social Media

(Room Atlântico)

Chair: Virve Siirak

DIGITAL NETWORKS OF PRACTICE: EFFECTIVE KNOWLEDGE CONSTRUCTION THROUGH NARRATIVES AND INTERACTIONS (F040)

Salam Abdallah, Anam Amin and Ashraf Khalil

EXPLORING USER'S SHARING PATTERNS ON MULTIPLE SOCIAL MEDIA PLATFORMS (F043)

Ashraf Khalil, Aisha Khan, Tasbeeh Fatima Raza and Salam Abdallah

A PC-BASED COMMUNICATION SYSTEM FOR SCHOOL EDUCATION ABOUT SAFETY USE OF SNS (P023)

Masashi Inoue and Masayuki Higashino

11:30-12:50 Session FSP 19.5

Data Mining and Clinical Studies

(Room Azores)

Chair: Mário Macedo

EXTRACTING FRAILTY STATUS FOR POST SURGICAL MORTALITY PREDICTION (F042)

Qing Zeng-Treitler, Yijun Shao, Yan Cheng, Kristina Doing-Harris, Rashmee U. Shah, Charlene R. Weir and Bruce E. Bray

EXTRACT CLINICAL MEASUREMENT VALUES USING A REGULAR EXPRESSION PATTERN DISCOVERY ALGORITHM VS SUPPORT VECTOR MACHINE (F053)

Douglas Redd, Bryan Gibson, Maureen A. Murtaugh, Joseph Goulet and Qing Zeng-Treitler

A CROWDSOURCE BASED HOSPITAL BI SYSTEM FOR THE NATIONAL HEALTH SERVICE (S081)

Duarte Sequeira and Bruno Trigo

12:55 Best Paper Awards Ceremony and Closing Session

(Room América)

Profs. Miguel Baptista Nunes, Mário Macedo and Pedro Isaías