**”1 Decembrie 1918” University of Alba Iulia**

**Department of Exact Science and Engineering**

**Smart Applications & Technologies for**

**Electronic Engineering**

**SATEE 2018**

* **Conference Program -**

**June, 21-23, 2018**

**Alba Iulia, România**

**Organized by**



**Sponsors**



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**Conference Program SATEE 2018**

***Friday 22nd June 2018***

**8.00 - 8.45** Breakfast

**9.00 - 9.15** Opening Ceremony. Welcome addresses (Senate Hall, Apor Palace)

**9.15 – 9.35** Opening messages – representants of București, Cluj- Napoca, Iași, Suceava, Pitești Universities

**9:35 - 10.00** Electronics Engineering Opportunities and Paradigms - Anniversary of Electronics Engineering Ceremony

**10.00 – 10.20** Excellence Diplomas Awarding Ceremony

**10.20 - 11.30** DHC, Plenary 1. (Senate Hall, Apor Palace)

**Plenary 1**. Ghe. BREZEANU, University Politehnica of Bucharest *Silicon carbide Sensors for Harsh Environment Applications*

**11.30 - 11.45** Coffee break

**11.45 - 13.30** Plenary Session: 2, 3, 4. (Senate Hall, Apor Palace)

**Plenary 2**. Mihaela ALBU, University Politehnica of Bucharest *Future electricity grids: conflicting visions, common perspective*

**Plenary 3. György GYÖRÖK, Obuda University of Budapest, Hungary**

*Continuous Operation Monitoring of Electronic Circuits with Embedded Microcontroller*

**Plenary 4.** Corneliu RUSU, Technical University of Cluj-Napoca *Adaptive lenght one-dimensional discrete phase retrieval*

**13.30 - 15.00** Lunch – University Restaurant

**15.00 – 15.45** Sponsors presentation (Senate Hall, Apor Palace)

**15.45 - 17.15** Parallel Workshop

1. Flexible and Adaptive System in Production Flows

Moderator: Assoc. prof. Manuella Kadar, Assoc. prof. Adriana Birlutiu

Location: Council Room, Apor Palace.

2. The Simulation and Circuit design in the Implementation of the Research Projects

Moderator: Assoc. prof. Emilian Ceuca, Florin Ignat

Location: Senate Hall, Apor Palace

**17.15 - 17.30** Coffee break

**17.30 - 19.00** 1. Parallel Sessions SATEE (LIT Room, Apor Palace)

**17.30 - 19.00** 2. Parallel Sessions SATEE, Stefan Apor, Apor Palace

**19.30 - 22.30** Conference dinner

***Saturday 23th June 2018***

**8.30 - 9.00** Breakfast

**9.00 - 10.30** Round table (Senat hall, Apor Palace)

Moderator: Ioan Ileana and Adrian Tulbure

Topic 1: „10 years of Electronical Engineering in Alba Iulia. Past. Present. Future perspective”

Topics 2: Practical approach and graduation thesis at ETTI University Politehnica of Bucharest;

University Admission - Faculty of ETTI, Technical University of Cluj Napoca;

Possibilities of ISI Journal Publications – University of Suceava;

Modern doctoral school in Electronics Engineering - Technical University of Iași;

**10.30 – 12.00** 3. Parallel Sessions SATEE (LIT Room, Apor Palace)

**10.30 – 12.00** 4. Parallel Sessions SATEE (Stefan Apor, Apor Palace)

**12.00 – 12.30** Cultural program - Alba-Carolina

**Workshop Program**

**1. Flexible and Adaptive Systems in Production Flows**

***June 22nd, 2018, Alba Iulia, Romania***

**Location: Apor Palace, Level 1, Council Room (Sala Consiliul de administraţie)**

**Moderator: Manuella Kadar, Adriana Birlutiu**

1. **15:45 – 16:15 George Pantazi (National Instruments)**. ***New Trends in Computer Vision at National Instruments.***
2. **16:15 – 16:30 David Álvarez (University Carlos III of Madrid, Leganés, Spain),** Santiago Garrido (University Carlos III of Madrid, Leganés, Spain), Luis Moreno (University Carlos III of Madrid, Leganés, Spain), Adriana Birlutiu (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania), Manuella Kadar (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania)*.* ***Automatic Character Recognition in Porcelain Ware.***
3. **16:30 – 16:45 Gözde Konuk Ege (Department of Mechatronics/İstanbul Gedik University, Turkey)**, Hüseyin Yüce (Department of Mechatronics Engineering/ Marmara University of İstanbul), Nihat Akkuş (Department of Mechatronics Engineering/ Marmara University of İstanbul). ***Aluminum Coating of Cotton and Polyester Textiles.***
4. **16:45 – 17:00 Kadar Manuella (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania)**, Boca Loredana (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania), Ricardo Jardim Goncalves (New University of Lisbon - Faculty of Sciences and Technology, Lisbon, Portugal). ***Towards Zero Defect Factory through Machine Vision Integrated into Operational Workflows.***
5. **17:00 – 17:15** Daniela Onita (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania), Manuella Kadar (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania), **Adriana Birlutiu (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania).** ***Towards Automated Defect Detection in Porcelain Industry.***
6. **17:15 – 17:30** Ovidiu Bagdasar (Department of Electronics, Computing and Mathematics, University of Derby), Adriana Birlutiu (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania), Minsi Chen (Department of Informatics University of Huddersfield, Huddersfield, UK), **Lucian Popa (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania). *Analysis of Glaze Color in Porcelain Industry.***
7. **17:30 – 17:45 Adrian Tulbure (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania)**, Manuella Kadar (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania), Adriana Birlutiu (Department of Exact Science and Engineering, 1 Decembrie 1918 University of Alba Iulia, Alba Iulia, Romania). ***Power supplying investigation for smart factory components.***
8. **17:45 – 18:00 Adrian Burlacu (Dept. Automatic Control and Applied Informatics, Technical University of Iasi, Iasi, Romania)**, Danut Irimia (Dept. of Energy Utilisation, Electrical Drives and Industrial Automation, Technical University of Iasi, Iasi, Romania), Ciprian Stamate (Dept. of Mechanical Engineering, Mechatronics and Robotics, Technical University of Iasi, Iasi, Romania), Ioan Doroftei (Dept. of Mechanical Engineering, Mechatronics and Robotics, Technical University of Iasi, Iasi, Romania). ***Semi-Automated Procedure for Waste Printed Circuits Boards Reduction.***

**2. The Simulation and Circuit design in the Implementation of the Research Projects**

***June 22nd, 2018, Alba Iulia, Romania***

**Location: Senate Hall, Apor Palace**

**Moderators: Assoc. prof. Emilian Ceuca, Florin Ignat**

**Workshop Program**

1. **15:45 – 16:30 Ansys Presentation:**  ***ANSYS SIMPLORER for Multidisciplinary Design for Power Electronics.***
2. **16:30 – 16:45 Florin Ignat (Continental Sibiu)***:* ***EMC Capability in Continental Sibiu***
3. **16:45 – 17:00 Silviu Doagă, Vasile Trifa: (Continental Sibiu)*: From the University to Industry – Practical projects at the “1 DECEMBRIE 1918” University of Alba Iulia.***
4. **17:00 - 17:15 Andrei Drăgan (Continental Sibiu):*****Software is the “new wheel” of the industry.***
5. **17:15 – 17:30 Emilian Ceuca, Călin Cristescu: *The Automatic testing system for the control circuit of vacuum cleaners produced in the Miele factory.***

***Friday 22nd June 2018***

**17.30 - 19.00** 1. Parallel Sessions SATEE (LIT Room, Apor Palace)

**Moderator: Gheorghe Marc**

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| 17:30-17:40 | Effect of temperature on the parameters of a bulk heterojunction organic solar cell  Ana Bărar, Marian Vlădescu, Paul Șchiopu |
| 17:40-17:50 | Optoelectronic method for the determination of buprenorphine and its metabolite  Georgeta Marcela Bican, Jeni Carla Colev, Mihai Ionică |
| 17:50-18:00 | **Enhanced method for determining platinum quantity from biological samples for atomic absorption spectrometer with graphite furnace**  Alexandra Andrada Bojescu, Radu Alexandru Macovei, Maria Neicu, Ruxandra Populeanu, Paul Şchiopu, Marian Vlădescu, Mihai Ionică |
| 18:00-18:10 | **Optoelectronic method for determining the amount of platinum from hair, urine and blood samples by atomic absorption spectrometer with graphite furnace at patients with chemotherapy**  Alexandra Andrada Bojescu, Radu Alecandru Macovei, Maria Neicu, Ruxandra Populeanu, Paul Şchiopu, Marian Vlădescu, Mihai Ionică |
| 18:10-18:20 | **Optoelectronic method for determining a mixture of organophosphorus compounds involved in environmental contamination**  Gina Caragea, Radu Alexandru Macovei, Paul Şchiopu, Marian Vlădescu, Ruxandra Populeanu, Mihai Ionică |
| 18:20-18:30 | Cost Effective Remote Control System for Analog Audio Mixers  Alina-Elena Marcu, Robert-Alexandru, Dobre, Marian Vlădescu |
| 18:30-18:40 | **Optoelectronic method for determinating the** [**selective serotonin reuptake inhibitors**](http://www.mayoclinic.org/diseases-conditions/depression/in-depth/ssris/art-20044825)  Maria Neicu, Radu Macovei, Paul Şchiopu, Marian Vlădescu, Ruxandra Populeanu, Gina Caragea, Mihai Ionică |
| 18:40-18:50 | **Methods for increasing the sensitivity and signal-to-noise ratio in mass spectrometry for the determination of cocaine and ethylbenzoylecgonine in urine** Ruxandra Populeanu, Marlena Vicleanu, Andreea Raluca Băjănaru,Radu Alexandru Macovei, Marian Vlădescu, Gabriela Anghelescu, Genica Caragea, Mihai Ionică |
| 18:50-19:00 | **Optoelectronic method for improving the signal-to-noise ratio of the mass spectrometer for determinating methadone and its metabolite** Ruxandra Populeanu, Marlena Vicleanu,Andreea Raluca Băjănaru, Radu Alexandru Macovei, Marian Vlădescu, Mihai Ionică |

**17.30 - 19.00** 2. Parallel Sessions SATEE, Stefan Apor, Apor Palace

**Moderator: Remus Dobra**

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| 17:30-17:40 | Error Prediction Concept in High Reliable Off-grid Power Management Systems  Bertalan Beszédes, György Györök |
| 17:40-17:50 | IoT for production lines between the paradigm and reality  Elisabeta Mihaela Ciortea |
| 17:50-18:00 | Continuous Operation Monitoring of Electronic Circuits with Embedded Microcontroller  György Györök |
| 18:00-18:10 | THE SIGNIFICANCE OF dLED LIGHTING TECHNOLOGY APPLICATION  Fuad, Hadžikadunić, Amna, Bajtarević |
| 18:10-18:20 | Industry 4.0 Pilot Laboratory  Károly, Széll, Attila, Sáfár |
| 18:20-18:30 | **Advanced Navigation of Automated Vehicles in Smart Manufacturing**  Peter UDVARDY, Károly SZÉLL |
| 18:30-18:40 | Optoelectronic methods for screening of GHRP-1 and it's metabolite in urine samples  Jeni - Carla Colev, Bogdan Berghes, Mihai Radu, Georgeta Marcela Bican, Marian Vlădescu, Mihai Ionică |
| 18:40-18:50 | Optoelectronic method for determining tramadol and its metabolites from urine samples  Maria Neicu, Radu Alexandru Macovei, Paul Şchiopu, Marian Vlădescu, Ruxandra Populeanu, Gina Caragea, Mihai Ionică |

***Saturday 23th June 2018***

**10.30 – 12.00** 3. Parallel Sessions SATEE (LIT Room, Apor Palace)

**Moderator: Elisabeta Mihaela Ciortea**

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| 10:30-10:40 | Decision balancing: processes implementation based on PIR sensor performances  Aurelian Costea, Paul Şchiopu |
| 10:40-10:50 | **Ultrasonic Distance Measurement for Safe Guidance of Visually Impaired People**  **Cristian Fărcaș, Ionuţ Ciocan, Gabriel Oltean, Adrian Tulbure** |
| 10:50-11:00 | **Comparative study by simulation of Norton and Thevenin schemes**  Dumitru Cioflica, Adrian Tulbure, and Calin Petrascu |
| 11:00-11:10 | **Gas-Chromatography –Tandem Mass Spectrometry (GC-MS) method for the identification of 2-Phenylethylamine, N-Methylphenylethylamine and Β-Methylphenylethylamine in human urine samples**  Manuela Dobrescu, Mihai Ionica |
| 11:10-11:20 | Learning basics of Java programming language through automatic generation of quizzes  Alexandru Ene |

**10.30 – 12.00** 4. Parallel Sessions SATEE (Stefan Apor, Apor Palace)

**Moderator: Constantin Hutanu**

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| 10:30-10:40 | **A parallel between a Content Management System for the Internet of Things vs. a Corpus Linguistics Project**  Liana Boca, Maria Loredana Boca*,* Mircea Risteiu |
| 10:40-10:50 | **Microcontroller’s using in monitoring the maintenance system of flexible manufacturing lines**  Gheorghe Marc, Alexandru Nițu |
| 10:50-11:00 | **Digital Signal Processing Embedded System for USB Communication**  Mircea Risteiu , Remus Dobra, Anca Antonov and Florin Samoila |
| 11:00-11:10 | **Cross Platform Embedded Setup Design for Electronic Control Unit**  Mircea Risteiu, Remus Dobra, M. Ayaz Ahmad and Florin Samoila |
| 11:10-11:20 | **Discrete-Time Periodic Signals Analysis using Code Composer Studio**  Remus Dobra, Mircea Risteiu , Georgeta Buica and Florin Samoila |
| 11:20-11:30 | **Creating a Content Management System for a Corpus Linguistics Project**  Liana Boca |

**Note**