the 4th International Workshop on

OPTOELECTRONIC TECHNIQUES

FOR

ENVIRONMENTAL MONITORING

ORGANIZERS

Romanian Ministry of Education, Research and Innovation National Institute of R&D for Optoelectronics, Bucharest "Babes Bolyai" University of Cluj-Napoca "Alexandru Ioan Cuza" University of Iasi Politechnica University of Timisoara University of Bucharest "Horia Hulubei"National Institute of R&D for Physics and Nuclear Engineering National Meteorological Administration Norwegian Institute of Air Research

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KEY SPEAKERS

Colin Opie, United Kingdom Christa Fittschen, France George Georgoussis, Greece Gerhard Ehret, Germany Ioan Balin, Switzerland Luca Fiorani, Italy Philippe Goloub, France Tymon Zelinsky, Poland Volker Freudenthaler, Germany Valentin Mitev, Switzerland

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| 09:30 09:45 opening OTEM Modelling and Analysis Tools 09:45 10:15 1 Studies of the impact of aerosol on climate change processes Tymon Zielinski Oceanology, Polish Academy of Sciences 10:15 10:30 coffee break sensors and Instrumentation(in situ, laboratory and remote sensing). Satellite Imagery. 10:30 Italian National Agency for New volcanic plumes Luca Fiorani Italian National Agency for New Technologies, Energy and the Environment 11:00 11:30 I OH Reactivity Measurements by FAGE Christa Fittschen Sciences et Technologies de Lille 11:30 11:45 0 Aerosol size distribution and composition near Bucharest during May 2010 Jeni Vasilescu National Institute of Optelectronics 11:45 12:00 0 Sea influence on AOD sunphotometric data in Romania Nicolae Ajtai Babes-Bolyai 12:15 12:30 0 Sea influence on AOD sunphotometric data Sabina Stefan Polytechnica 12:120 12:30 0 Sea influence on AOD sunphotometric data Sabina Stefan Polytechnica 12:120 12:30 0 | 19 October 2010 | | | | | | | | | |
|---|-----------------|--------|-------|--|-------------|------------------|--|--|--|--|
| 09:4510:15IStudies of the impact of aerosol optical properties on climate change processesTymonZielinskiInstitute of Oceanology, Polish Academy of Sciences10:1510:30coffee breakSensors and Instrumentation(in situ, laboratory and remote sensing). Satellite Imagery. Italian National Agency for New Technologies, Energy and the Environment10:3011:00ILidar characterization of volcanic plumesLucaFioraniItalian National Agency for New Technologies, Energy and the Environment11:0011:30IOH Reactivity Measurements by FAGEChristaFittschenSciences et Technologies de Lille11:3011:45OOH Reactivity Measurements by FAGEJeniVasilescuNational Institute of R&D for Optoelectronics11:4512:00OSea influence on AOD sunphotometric data in RomaniaNicolaeAjtaiBabes-Bolyai University of Cluj- Napoca12:1512:30ODiurnal variation of particulate matter in the proximity of Rovinari fossil-fuel power plantCatalin NisulescuNisulescuPolytechnica University of Timisoara | 09:30 | 09:45 | | opening OTEM | | | | | | |
| 09:4510:15Ioptical properties on climate change processesTymonZielinskiOceanology, Polish Academy of Sciences10:1510:30coffee breakSensors and Instrumentation(in situ, laboratory and remote sensing). Satellite Imagery.10:3011:00ILidar characterization of volcanic plumesLucaFioraniItalian National Agency for New Technologies, Energy and the Environment by FAGE11:0011:30IOH Reactivity Measurements by FAGEChristaFittschenSciences et Technologies de Lille11:3011:45OAerosol size distribution and composition near Bucharest during May 2010JeniVasilescuNational Institute of R&D for Optoelectronics11:4512:00OSea influence on AOD sunphotometric data in RomaniaNicolaeAjtaiBabes-Bolyai University of Cluj- Napoca12:1512:30OSea influence on AOD sunphotometric dataSabinaStefanVisuescu12:1512:30DDiurnal variation of particulate matter in the proximity of Rovinari fossil-fuel power plantCatalinNisulescuPolytechnica University of Physics | | | | | | | | | | |
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| 11:3011:45Ocomposition near Bucharest during May 2010JeniVasilescuR&D for Optoelectronics11:4512:00OComparative study of regional aerosols from columnar | 11:00 | 11:30 | I | - | Christa | Fittschen | Sciences et | | | |
| 11:4512:00Oaerosols from columnar sunphotometric data in RomaniaNicolaeAjtaiBabes-Bolyai University of Cluj- Napoca12:0012:15OSea influence on AOD sunphotometric dataSabinaStefanUniversity Of Bucharest, Faculty of Physics12:1512:30ODiurnal variation of particulate matter in the proximity of Rovinari fossil-fuel power plantCatalinNisulescuPolytechnica University of Timisoara | 11:30 | 11:45 | 0 | composition near Bucharest | Jeni | Vasilescu | R&D for | | | |
| 12:0012:15OSea influence on AOD supplotometric dataSabinaStefanBucharest, Faculty of Physics12:1512:30ODiurnal variation of particulate matter in the proximity of Rovinari fossil-fuel power plantCatalinNisulescuUniversity of Timisoara | 11:45 | 12:00 | 0 | aerosols from columnar sunphotometric data in | Nicolae | Ajtai | University of Cluj- | | | |
| 12:15 12:30 O matter in the proximity of Catalin Nisulescu University of Rovinari fossil-fuel power plant Timisoara | 12:00 | 12:15 | 0 | | Sabina | Stefan | Bucharest, Faculty of | | | |
| 12:30 15:00 lunch | 12:15 | 12:30 | 0 | matter in the proximity of | Catalin | Nisulescu | University of | | | |
| | 12:30 | 15:00 | | lunch | | | | | | |

| | 19 October 2010 | | | | | | | | | | |
|-------|---|---|---|--------------|--------------|---|--|--|--|--|--|
| | Sensors and Instrumentation(in situ, laboratory and remote sensing). Satellite Imagery. | | | | | | | | | | |
| 15:00 | 15:30 | I | Active Remote Sensing of Meteorological Parameter and Atmospheric Trace Gases by Airborne Lidar | Gerhard | Ehret | Institut für Physik der Atmosphäre, DLR | | | | | |
| 15:30 | 15:45 | 0 | Ozone Vertical Profiles over Bucharest | Livio | Belegante | National Institute of R&D for Optoelectronics | | | | | |
| 15:45 | 16:00 | | coffee break | | | | | | | | |
| | | | Modelling and A | nalysis Tool | s | | | | | | |
| 16:00 | 16:15 | 0 | Comparison of air quality in urban traffic areas and areas with air traffic | Francisc | Popescu | Polytechnica University of Timisoara | | | | | |
| 16:15 | 16:30 | 0 | Ground based measurements comparison with forecast air pollution model Map3D for a suburban Bucharest area | Emil | Carstea | National Institute of R&D for Optoelectronics | | | | | |
| 16:30 | 16:45 | 0 | The nocturnal boundary layer height at Bucharest-Baneasa: lidar measurements versus modelled values | Dan | Dobrovolschi | Romanian National Meteorological Administration | | | | | |
| 16:45 | 17:00 | 0 | Cloud height top estimation from satellite imagery and LIDAR measurements | Luminita | Marmureanu | National Institute of R&D for Optoelectronics | | | | | |

| | 20 October 2010 | | | | | | | | | |
|---|-----------------|-------|---|-----------------|--------------------|--|--|--|--|--|
| Sensors and Instrumentation(in situ, laboratory and remote sensing). Satellite Imagery. | | | | | | | | | | |
| 09:30 | 10:00 | I | Compact micropulse backscatter lidar: Airborne and groundbased applications | Valentin | Mitev | CSEM Centre Suisse d'Electronique et de Microtechnique SA Neuchatel | | | | |
| 10:00 | 10:30 | I | Depolarization measurement technique: definitions, calibration, and applications | Volker | Freudenthaler | Ludwig-Maximilian- Universität München, Germany | | | | |
| 10:30 | 10:45 | | coffee break | | | | | | | |
| | Sensor | s and | Instrumentation(in situ, laborato | ry and remo | ote sensing). Sate | llite Imagery. | | | | |
| 10:45 | 11:15 | I | Development and optimization of high-accuracy multiwavelength lidars - the producer point of view | George | Georgoussis | Raymetrics | | | | |
| 11:15 | 11:30 | 0 | Optimization of aerosol optical properties retrieval by use of low-range and high-range lidars. Comparison with sun photometry. | Doina | Nicolae | National Institute of R&D for Optoelectronics | | | | |
| 11:30 | 11:45 | 0 | First Romanian LIDAR investigation of the EYJAFJALLAJOKULL volcanic ash | Adrian | Timofte | Al.I.Cuza University of Iasi | | | | |
| 11:45 | 12:00 | 0 | Preliminary results of SO2 measurements in SW Romania using UVGasCam cameras | Razvan | Radulescu | National Institute of R&D for Optoelectronics | | | | |
| 12:00 | 12:15 | 0 | Reduction of CO2 emission using biogas as a fuel for small spark ingnition engines | Adrian Eugen | Cioabla | Polytechnica University of Timisoara | | | | |
| 12:15 | 12:30 | 0 | Reduction of the pollution degree by fueling small scale cogeneration block with biobutanol blends | Lontis | Nicolae | Polytechnica University of Timisoara | | | | |
| 12:30 | 15:00 | | lunch | | | | | | | |
| 15:00 | 20:00 | | trip | | | | | | | |

| | | | 21 October 2010 | | | |
|-------|-------|---|--|----------|------------|--|
| 09:00 | 09:30 | | opening ELSEDIMA | | | |
| | | | Facilities and Network Observat | ions | | |
| 09:30 | 10:00 | I | The future of ground-based aerosol remote sensing with Cimel sunphotometer - PHOTONS network evolution | Philippe | Goloub | Universite de Lille 1, Laboratoire d'Optique Atmosphérique |
| 10:00 | 10:30 | I | Extreme Phenomenon Observations From Satellite Using EUMETCAST | Colin | Opie | Dartcom |
| 10:30 | 11:00 | I | MAP3D: MesoScale Air Pollution modeliing : Implementation in Romania and analysis of first results | loan | Balin | ENVIROSCOPY CH |
| 11:00 | 11:30 | | coffee break | | | |
| | | | ELSEDIMA | | | |
| 11:30 | 12:00 | Ι | ELSEDIMA | | | |
| 12:00 | 12:30 | | ELSEDIMA | | | |
| 12:30 | 13:00 | I | ELSEDIMA | | | |
| 13:00 | 15:30 | | lunch | | | |
| | | | InfoHour: research, education and funding | opportun | ities | |
| 15:30 | 15:45 | 0 | RADO: opportunities for research and education | Doina | Nicolae | |
| 15:45 | 16:00 | 0 | Funding opportunities for environmental research | Viorel | Vulturescu | |
| 16:00 | 16:30 | D | Discussions, brainstorming | | | |
| 16:30 | 16:45 | | coffee break | | | |

| | | | 21 October 2010 | | | | | | | |
|-------|---------------------------------------|-----|--|--------------------|---------------------|---|--|--|--|--|
| | Poster session, exhibition & cocktail | | | | | | | | | |
| 16:45 | 16:50 | P01 | An assessment of the state and evolution of the quality of the atmosphere in Cluj-Napoca area, using lichens as heavy metal bioindicators | Andrea | Gagyi- Palffy | Babes-Bolyai University of Cluj-Napoca | | | | |
| 16:50 | 16:55 | P02 | The impact of the mine field activity on the surface waters from Baia Mare area. | Cret | loana | Faculty of Environmental Science, "Babes-Bolyai" University of Cluj-Napoca | | | | |
| 16:55 | 17:00 | P03 | A preliminary assesment of the environmental impact of the tailings dumps belonging to Lupeni mine (Valea Jiului) | Irimia | Georgiana- Ioana | Babes-Bolyai University of Cluj-Napoca | | | | |
| 17:00 | 17:05 | P04 | Mining risk assessments - Valea Sesei tailings Pond | Utiu | Raluca- Ioana | Babes Bolyai University | | | | |
| 17:05 | 17:10 | P05 | Filtering ponds Colbu 1 and Colbu 2. | Cozma | Alexandra Iulia | Babes Bolyai, Cluj-Napoca | | | | |
| 17:10 | 17:15 | P06 | Angstrom turbidity in the lower layers of troposphere. | Andreea | Boscornea | University of Bucharest, Faculty of Physics, Dept. of Atmospheric Physics. | | | | |
| 17:15 | 17:20 | P07 | Light Scattering in Particulate Matter Monitoring as tool for health exposure. Case study: Central Park Cluj-Napoca, Romania | loana- Nicoleta | Рор | Babes-Bolyai University of Cluj-Napoca | | | | |
| 17:20 | 17:25 | P08 | Holographic method for local atmospheric aerosol statistics | Mona | Mihailescu | Politehnica University from Bucharest, Romania | | | | |
| 17:25 | 17:30 | P09 | Non-destructive, qualitative analysis of rare earth elements from meteoritic samples, using a laser ablation system coupled with a plasma mass spectrometer | Tanaselia | Claudiu | INCDO- INOE2000 ICIA | | | | |

| | | | 21 October 2010 | | | | | | | | |
|-------|---------------------------------------|-----|---|---------|-----------|--|--|--|--|--|--|
| | Poster session, exhibition & cocktail | | | | | | | | | | |
| 17:30 | 17:35 | P10 | Experimental validation of MAP 3D environmental data in NE region of Romania- Iasi area | Mihai | Cazacu | Al.I.Cuza University of Iasi | | | | | |
| 17:35 | 17:40 | P11 | Reduction of CO2 emission applying co-firing technology of biomass waste resource | Gabriel | Trif | Polytechnica University of Timisoara | | | | | |
| 17:40 | 17:45 | P12 | State of the art of the lidar systems development for the ROmanian LIdar national NETwork ROLINET | lon | Balin | ENVIROSCOPY CH | | | | | |
| 17:45 | 17:50 | P13 | Ceilometer's aplications to observe troposphere-preliminary study | loana | Ungureanu | Universitatea Bucuresti- Facultatea de fizica | | | | | |
| 17:50 | 17:55 | P14 | Importance of corrections applied to Lidar data | Vetres | lon | Polytechnica University of Timisoara | | | | | |
| 17:55 | 18:00 | P15 | Reduction of greenhouse gases emission by post combustion capture | Viorica | Cebrucean | Polytechnica University of Timisoara | | | | | |
| 18:00 | 18:05 | P16 | Comparative study of regional aerosols from columnar sunphotometric data in Romania | Nicolae | Ajtai | Babes-Bolyai University of Cluj-Napoca | | | | | |
| 18:05 | 19:30 | | Visit to posters and exhibition, discussions, cocktail | | | | | | | | |