



REV2020 February 26–28, 2020, University of Georgia, Athens, GA, USA

Session Overview

Date: Tuesday, 25/Feb/2020

- 1:00pm** **1st Pre-Conference LabsLand Community Event**
- Location: **Room D (pre-conference)**
Chair: **Pablo Orduña**, LabsLand
Chair: **Luis Rodriguez Gil**, LabsLand
- LabsLand is thrilled to host the first LabsLand Community Event, with many of the LabsLand laboratory providers and other ecosystem partners. (see abstract for details and agenda)
- 5:00pm** **Participant Registration**
- Location: **Conference Registration Desk**
- 7:30pm** On-site registration for REV2020
- 6:00pm** **Welcome Reception**
- Location: **Pecan Tree Galleria (welcome)**
- 7:30pm** Welcome reception with light drinks and finger food to get ready for REV2020

Date: Wednesday, 26/Feb/2020

- 8:00am** **Participant Registration**
- Location: **Conference Registration Desk**
- 3:00pm** On-site registration for REV2020
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|---|--|---|---|
| <p>8:30am WS 1a: Workshop #1 (part 1/2)
- Location: Room F/G (breakout #1)
Chair: Kalyan Ram Bhimavaram,
Electrono Solutions Pvt Ltd</p> <p>10:00am Impact of Industry 4.0 on Engineering Education</p> | <p>WS 2a: Workshop #2 (part 1/2)
Location: Room T/U (breakout #2)
Chair: Max Hoffmann, RWTH Aachen
University</p> <p>Modern Data Science using Industrial Big Data - The Value Creation Chain of Digital Information in Industry 4.0</p> | <p>WS 3a: Workshop #3 (part 1/2)
Location: Room V/W (breakout #3)
Chair: David Boehringer, University of
Stuttgart
Chair: Claudius Terkowsky, TU
Dortmund University</p> <p>Learning Objectives of Online Labs</p> | <p>WS 4a: Workshop #4 (part 1/2)
Location: Room Y/Z (breakout #4)
Chair: Luis Rodriguez Gil, LabsLand
Chair: Javier Garcia-Zubia,
University of Deusto
Chair: Candido Aramburu, Public
University of Navarre VAT
ESQ3150012G
Chair: Unai Hernández, DeustoTech-
Fundacion Deusto - Universidad de
Deusto</p> <p>Remote Laboratories for Engineering: the LabsLand global network</p> |
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- 10:00am** **Coffee Break**
- Location: **Kellogg Concourse (exhibition & breaks)**
- 10:30am** Coffee, tea, water, and light refreshments will be offered
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| <p>10:30am WS 1b: Workshop #1 (part 2/2)
- Location: Room F/G (breakout #1)
Chair: Kalyan Ram Bhimavaram,
Electrono Solutions Pvt Ltd</p> <p>12:00pm Impact of Industry 4.0 on Engineering Education</p> | <p>WS 2b: Workshop #2 (part 2/2)
Location: Room T/U (breakout #2)
Chair: Max Hoffmann, RWTH Aachen
University</p> <p>Modern Data Science using Industrial Big Data - The Value Creation Chain of Digital Information in Industry 4.0</p> | <p>WS 3b: Workshop #3 (part 2/2)
Location: Room V/W (breakout #3)
Chair: David Boehringer, University of
Stuttgart
Chair: Claudius Terkowsky, TU
Dortmund University</p> <p>Learning Objectives of Online Labs</p> | <p>WS4b: Workshop #4 (part 2/2)
Location: Room Y/Z (breakout #4)
Chair: Luis Rodriguez Gil, LabsLand
Chair: Javier Garcia-Zubia,
University of Deusto
Chair: Candido Aramburu, Public
University of Navarre VAT
ESQ3150012G
Chair: Unai Hernández, DeustoTech-
Fundacion Deusto - Universidad de
Deusto</p> <p>Remote Laboratories for Engineering: the LabsLand global network</p> |
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12:00pm	Lunch Break Location: Magnolia Ballroom (lunch)		
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1:00pm	Buffet style lunch, displaying the southern US cuisine		
1:00pm	OPEN: REV 2020 Opening Session Location: Room K/L (plenary)		
-	Chair: Dominik May , University of Georgia		
1:30pm	Chair: Michael E. Auer , Carinthia University of Applied Sciences Chair: Kalyan Ram Bhimavaram , Electrono Solutions Pvt Ltd REV 2020 official opening session with welcome addresses by UGA and IAOE representatives		
1:30pm	PLENARY 1: Plenary Session I Location: Room K/L (plenary)		
-	Chair: Dominik May , University of Georgia		
3:00pm	Plenary session with keynotes from academia and industry Hans J. Hoyer (IFEES): "Introduction to the global network of Engineering Education in context with critical global challenges for future engineers" Francis Limousy, Paul Miller, and Basil Ittiavira (all UL): "Virtual Payment Technology Test Tools"		
3:00pm	Coffee Break Location: Kellogg Concourse (exhibition & breaks)		
-			
3:30pm	Coffee, tea, water, and light refreshments will be offered		
3:30pm	PS-A1: Special Session A1 (e-Eng'20) Location: Room F/G (breakout #1) Chair: Manuel Gericota , School of Engineering - Polytechnic of Porto REV2020 Special Session: 'e-Engineering courses - Where and when students need' (part 1) Full paper submission presentations (20 mins each) and discussion	PS-A2: Special Session A2 (AVR-ENED'20) Location: Room T/U (breakout #2) Chair: Kyle Johnsen , University of Georgia REV2020 Special Session: 'Augmented and Virtual Reality in Engineering Education' (part 1) Full paper submission presentations (20 mins each) and discussion	PS-A3: Parallel Session A3 Location: Room V/W (breakout #3) Chair: Karsten Henke , Ilmenau University of Technology Smart Technologies and Systems Full paper submission presentations (20 mins each) and discussion Visible Light Communication for Automotive Market Weather Conditions Simulation Cristian-Ovidiu Ivascu , Doru Ursutiu, Cornel Samoila Universitatea Transilvania Brasov Romania, Romania
5:00pm	Eoles Course – Five years of remote learning and experimenting André Fidalgo , Paulo Ferreira, Manuel Gericota ISEP, Portugal	Basic Requirements to Designing Collaborative Augmented Reality - Status Quo and First Insights to a User-Centered Didactic Concept Nina Schiffeler , Valerie Varney, Esther Borowski, Ingrid Isenhardt IMA - RWTH Aachen University, Germany	Usability Study of Voice Activated Smart Home Technology Nichole Hugo , Toqeer Israr, Wutthigrai Boonsuk, Yasmine Miloud, Jerry Cloward, Peter Liu Eastern Illinois University, United States of America
	E-Engineering Education: Issues and Perspectives for Higher Education Institutions Paulo Ferreira , André Fidalgo, Manuel Gericota Instituto Politécnico do Porto, Portugal	Usability Study for an Augmented Reality Content Management System Jan Luca Siewert¹ , Mario Wolf ¹ , Bianca Böhm ² , Sigurd Thienhaus ³ 1: Digital Engineering Chair, Ruhr-University Bochum, Germany; 2: Excellent Teaching and Learning in Engineering, Ruhr-University Bochum, Germany; 3: Materials Discovery and Interfaces, Ruhr-University Bochum, Germany	The 3D Motion Capturing Process of Greek Traditional Dance "Syrtos in Three" and a Proposed Method for the Sex Identification of Performing Dancers (Terpsichore Project) Styliani Douka¹ , Efthymios Ziagkas ¹ , Vasiliki Zilidou ¹ , Andreas Loukovitis ¹ , Thrasyvoulos Tsiatsos ² 1: Aristotle University of Thessaloniki, Faculty of Physical Education and Sport Science, Greece; 2: Aristotle University of Thessaloniki, School of Informatics, Greece
	An Implementation of Microservices Based Architecture for Remote Laboratories Mohammed Moussa , Abdelhalim Benachenhou, Ismail Belghit, Abderrahmane Adda Benattia, Abderrahmane Boumechdi Université Abdelhamid Ibn Badis Mostaganem, Algeria	Voluminis: An Augmented Reality Mobile System to Evaluate Math Comprehension Competence in Geometry Juan Deyby Carlos-Chullo , Marielena Vilca-Quispe, Eveling Castro-Gutierrez Universidad Nacional de San Agustín de Arequipa	
	Overview Of Remote Laboratory Technology And Applications Fahd Ouatik¹ , Mustapha Raoufi ² , Farouk Ouatik ³ , Mohammed Skouri ⁴ 1: Cadi Ayyad University Morocco; 2: Cadi Ayyad University Morocco; 3: Sultan Moulay Sliman University Morocco; 4: Cadi Ayyad University Morocco	Collaborative Virtual Reality Training Experience for Engineering Land Surveying Anton Franzluebbers , Alexander James Tuttle, Kyle Johnsen, Stephan Durham, Robert Baffour University of Georgia, United States of America	
7:30pm	Social get-together at Creature Comforts Brewery Location: Creature Comforts Brewery		
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9:00pm	Social get-together at a local brewery in Athens downtown (self-pay basis)		

Date: Thursday, 27/Feb/2020

8:00am **Participant Registration**
- Location: [Conference Registration Desk](#)
9:00am On-site registration for REV2020

8:30am **PS-B1: Special Session B1 (e-Eng'20)**
- Location: [Room F/G \(breakout #1\)](#)
10:00am Chair: **Manuel Gericota**, School of Engineering - Polytechnic of Porto

REV2020 Special Session: 'e-Engineering courses - Where and when students need' (part 2)
Full paper submission presentations (20 mins each) and discussion

Mobile Arduino Robot Programming Using a Remote Laboratory in UNAD: Pedagogic and Technical Aspects

Paola Andrea Buitrago¹, Raúl Camacho¹, Harold Esneider Pérez¹, Oscar Jaramillo¹, Aitor Villar^{2,3}, Luis Rodríguez-Gil³, Pablo Orduna^{2,3}
1: Universidad Nacional Abierta y A Distancia - UNAD, Colombia; 2: University of Deusto, Bilbao, Spain; 3: LabsLand, Bilbao, Spain

Experience with the VISIR remote laboratory at the Universidad Estatal a Distancia (UNED)

Carlos Arguedas-Matarrita¹, Marco Conejo-Villalobos¹, Fernando Ureña Elizondo¹, Oscar Barahona Aguilar¹, Unai Hernandez², Javier García-Zubia², Luis Rodríguez-Gil³, Pablo Orduña³
1: Universidad Estatal a Distancia, Costa Rica; 2: Universidad de Deusto, España; 3: LabsLand, España

Using VISIR Remote Lab in the Classroom: Case of Study of the University of Deusto 2009-2019

Javier García-Zubia¹, Jordi Cuadros², Unai Hernández-Jayo¹, Vanessa Serrano², Ignacio Angulo², Susana Romero², Gustavo Alves³, Andre Fidalgo³, Pablo Orduna⁴, Luis Rodríguez-Gil⁴
1: University of Deusto, Spain; 2: IQS-University Ramon Llull, Spain; 3: Instituto Superior de Engenharia, Portugal; 4: LabsLand S.L.

Multi-Phase Flowloop Remote Laboratory

Martin Sierra Apel, Felix J.C. Odebrett, Dr.-Ing. Carlos Paz, Dr.-Ing. Nelson Perozo
Clausthal University of Technology, Germany

10:00am **Coffee Break**
- Location: [Kellogg Concourse \(exhibition & breaks\)](#)
10:30am Coffee, tea, water, and light refreshments will be offered

10:30am **PLENARY 2: Plenary Session II**
- Location: [Room K/L \(plenary\)](#)
12:00pm Chair: **Dominik May**, University of Georgia

Plenary session with keynotes from academia and industry

Max Hoffmann (RWTH Aachen University): "Big Data – The Data-Driven Approach to Education of the Future?"

Melanie Spare (Siemens): "Innovation through academia and industry collaboration: Creating a Future proof workforce for Industry 4.0"

12:00pm **Lunch Break**
- Location: [Magnolia Ballroom \(lunch\)](#)
1:30pm Buffet style lunch, displaying the southern US cuisine

1:30pm **PS-C1: Parallel Session C1**
- Location: [Room T/U \(breakout #2\)](#)
2:30pm Chair: **Tobias R. Ortelt**, TU Dortmund University

New Ways in Remote Engineering and Virtual Instrumentation
Short paper and Work-In-Progress paper submission presentations (5 mins each); poster walk and discussion will happen in the poster and demo session location

Work-in-Progress: Using Augmented Reality Mobile App to Improve Student's Skills in Using Breadboard in an Introduction to Electrical Engineering Course

Adel Al Weshah¹, Ruba Alamad², Dominik May¹
1: University of Georgia, United States of America; 2: The University of Akron

Effect of a Simulated Laboratory Intervention on Biological Engineering Student Motivation A Case Study
Ryan Devine, Dominik May

PS-B2: Special Session B2 (AVR-ENED'20)
Location: [Room T/U \(breakout #2\)](#)
Chair: **Dominik May**, University of Georgia

REV2020 Special Session: 'Augmented and Virtual Reality in Engineering Education' (part 2)
Full paper submission presentations (20 mins each) and discussion

Improvement in Quality of Virtual Laboratory Experiment Designs by using the Online SDVlcE Tool

Anita Diwakar
Indian Institute of Technology Bombay, India

Model to evaluate users' engagement to Augmented Reality using xAPI

Maria Paula Corrêa Angeloni¹, Hamadou Saliah-Hassane², Juarez Bento da Silva¹, João Bosco da Mota Alves¹

1: Federal University of Santa Catarina, Brazil; 2: University TÉLUQ, Canada

A Case Study of AR Technology and Engineering Students: Is There a Gender Gap?

Diana Urbano¹, Paulo Menezes², Maria de Fátima Chouzal¹, Maria Teresa Restivo¹
1: Laeta-Inegi, University of Porto, Portugal; 2: ISR, University of Coimbra, Portugal

Augmented Reality Production Monitoring Control Room

Cristian-Ovidiu Ivascu, Doru Ursutiu, Cornel Samoila
Universitatea Transilvania Brasov Romania, Romania

PS-C2: Parallel Session C2
Location: [Room V/W \(breakout #3\)](#)
Chair: **André Fidalgo**, ISEP

New Ways in Remote Engineering and Virtual Instrumentation
Short paper and Work-In-Progress paper submission presentations (5 mins each); poster walk and discussion will happen in the poster and demo session location

Remote Lab to Illustrate the Influence of Process Parameters on Product Properties in Additive Manufacturing

Siddharth Upadhyay, Joshua Grodotzki, Alessandro Selvaggio, Oleksandr Mogylenko, A. Erman Tekkaya
Institute of Forming Technology and Lightweight Components, TU Dortmund, Germany

PS-B3: Parallel Session B3
Location: [Room V/W \(breakout #3\)](#)
Chair: **Anke Pfeiffer**, Hochschule für Technik Stuttgart

Remote Laboratories in Practice
Full paper submission presentations (20 mins each) and discussion

Real laboratories available online: Establishment of ReVEL as a conceptual framework for implementing remote experimentation in South African Higher Education Institutions (HEIs) and rural-based schools – A case study at the University of Fort Hare

Pumezo Mzoxolo Kwinana¹, Mantile Lekala², Mncedi Rani¹, Phumzile Nomnga¹
1: University of Fort Hare, South Africa; 2: University of South Africa, South Africa

Information Preferences of Engineering Educators Considering Adoption of Remote Engineering Instructional Laboratories

Steven Walter Tuttle, Zenon Chaczko
University of Technology Sydney

Safety and Security in Federated Remote Labs – A Requirement Analysis

Dieter Uckelmann¹, Davide Mezzogori², Giovanni Esposito², Mattia Neroni², Davide Reverberi², Maria Ustenko²
1: HFT Stuttgart, Germany; 2: University of Parma, Italy

Remote Labs in Germany – An Overview about similarities and variations

Tobias R. Ortelt, Tobias Haertel, Silke Frye
TU Dortmund University, Engineering Education, Germany

University of Georgia, United States of America

Diana Keddi, Sulamith Frerich
Ruhr-Universität Bochum, Germany

Online Creativity in Engineering Education

Tobias Haertel, Claudius Terkowsky
TU Dortmund University, Germany

How To Design Digitalized Laboratories? Lessons Learned From Implementing Virtual and Remote Labs

Natascha Strenger, Sulamith Frerich
Ruhr-Universität Bochum, Germany

Programmable Remote Laboratory for Mobile Robots

Rafael Franco-Vera, Xuenmin Chen, Wei Wayne Li
Texas Southern University, United States of America

Implications of IoT in 3D Printing and Remote Engineering

Amogh M Aradhya
Dr. Ambedkar Institute of Technology, India

Augmented Reality Application for the Mobile Measurement of Strain Distributions

**Oleksandr Mogylenko, Alessandro Selvaggio,
Siddharth Upadhyaya, Joshua Grodotzki, A. Erman
Tekkaya**

INSTITUTE OF FORMING TECHNOLOGY AND
LIGHTWEIGHT COMPONENTS, Germany

Data Warehousing and Data Mining for the Management of Scientific Research

Mohamed El Mohadab¹, Fahd Ouatike², Said Safi¹
1: Sultan Moulay Slimane University, Morocco; 2:
Caddy Ayyad University, Morocco

Towards a Flipped Optical Laboratory

**Thrasylvoulos Tsiatsos¹, Nikolaos Politopoulos
Nikolaos Politopoulos¹, Panagiotis Stylianidis
Panagiotis Stylianidis¹, Nikolaos Pleros Nikolaos
Pleros¹, Lampros Karavidas¹, Kyriaki Karypidou¹,
Andreas Pester², Thomas Klinger²**

1: Aristotle University of Thessaloniki, Greece; 2:
Carinthia University of Applied Sciences, Austria

Flexible System Based on Hybrid Algorithms Used in Decision Making

**Mario Marcelo Figueroa de la Cruz¹, Pablo Cesar
Rovarni², Laura Rovarini³, Claudia Solorzano⁴**
1: UNSTA, Argentine Republic; 2: UNSTA, Argentine
Republic; 3: UNSTA, Argentine Republic; 4: UNSTA,
Argentine Republic

Towards a Remote Warehouse Management System

**Ioannis Stamelos¹, Charalampos Avratoglou²,
Panayotis Tzinis¹, George Kakarontzas³,
Alexander Chatzigeorgiou⁴, Apostolos
Ampatzoglou¹, Dimitris Folinis⁵, Iakovos
Stratigakis¹, Lambros Karavidas¹, Christina
Volioti⁴, Theodoros Amanatidis⁴, Anastasia
Deliga¹, Thrasylvoulos Tsiatsos¹**

1: Aristotle University of Thessaloniki, Greece; 2:
Entersoft, Greece; 3: University of Thessaly, Greece;
4: University of Macedonia, Greece; 5: International
Hellenic University, Greece

Bio Radar For Remotely Vital Sign Monitoring

**Fiza Alina, Nabeel Khan, Syed UbaidUllah Buhkari,
Syed Usman Amin, Siraj Anis, Sarmad Ahmed
Shaikh**
PAF- Karachi Institute of Economics and Technology
(KIET), Karachi, Pakistan

Machine Development Using Virtual Commissioning

Hasan Smajic¹, Jean Bosco²
1: University of Technology, Arts and Sciences,
Cologne, Germany; 2: Dedan Kimathi University of
Technology, Department for Mechatronics Kenyatta-
Nairobi, Kenya

2:30pm

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PD: Poster and Demo Session

Location: [Kellogg Concourse \(exhibition & breaks\)](#)

3:30pm

Short paper and Work-In-Progress poster and demo exhibition

3:30pm

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Coffee Break

Location: [Kellogg Concourse \(exhibition & breaks\)](#)

4:00pm

Coffee, tea, water, and light refreshments will be offered

4:00pm

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PLENARY 3: Plenary Session III

Location: [Room K/L \(plenary\)](#)

4:45pm

Chair: **Dominik May**, University of Georgia

Plenary session with keynotes from academia and industry

John DeTellem (Siemens): "Basics of automation solutions that are geared for the future"

4:45pm

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IAOE 2: IAOE Annual General Meeting

Location: [Room K/L \(plenary\)](#)

6:00pm

Chair: **Kalyan Ram Bhimavaram**, Electrono Solutions Pvt Ltd
Chair: **Michael E. Auer**, Carinthia University of Applied Sciences

open to public Every REV 2020 participant is welcome to attend the International Association of Online Engineering (IAOE) annual general meeting. Attendees will learn more about the IAOE's work over the last year and in the coming future.

7:00pm

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Conference Dinner & Awards

Location: [Special Collections Libraries \(dinner\)](#)

9:30pm

Chair: **Kalyan Ram Bhimavaram**, Electrono Solutions Pvt Ltd
Chair: **Abul Azad**, NIU
Chair: **Michael E. Auer**, Carinthia University of Applied Sciences

Conference Dinner & Awards session at UGA Special Collections Libraries

Date: Friday, 28/Feb/2020

8:30am - 10:00am	PS-D1: Special Session D1 (LOLA'20) Location: Room F/G (breakout #1) Chair: David Boehringer , University of Stuttgart REV2020 Special Session: 'Learning Objectives and Learning Analytics' Full paper submission presentations (20 mins each) and discussion	PS-D2: Parallel Session D2 Location: Room T/U (breakout #2) Chair: Carlos Arguedas-Matarrita , Universidad Estatal a Distancia Virtual and Remote Labs in Education Full paper submission presentations (20 mins each) and discussion	PS-D3: Parallel Session D3 Location: Room V/W (breakout #3) Chair: Kalyan Ram Bhimavaram , Electrono Solutions Pvt Ltd Industry and Education 4.0 Full paper submission presentations (20 mins each) and discussion
	Utilizing User Activity and System Response for Learning Analytics in a Remote Lab Andrea Schwandt , Marco Winzker, Markus Rohde Hochschule Bonn-Rhein-Sieg, Germany	Using Chatbot For Augmenting The Design Of Virtual Lab Experiments Prafful Javare¹ , Divya Khetan ¹ , Anita Diwakar² 1: K.J. Somaiya College of Engineering, India; 2: AIEE Training and Services LLP	Integration Of New Technologies And Alternative Methods In Laboratory-Based Scenarios Martin Burghardt¹ , Peter Ferdinand ¹ , Anke Pfeiffer ² , Davide Reverberi³ , Giovanni Romagnoli ³ 1: Institut für Wissensmedien Koblenz-Landau, Germany; 2: Hochschule für Technik Stuttgart, Germany; 3: University of Parma, Italy
	Digital Laboratories for Educating the IoT-Generation - Heatmap for Digital Lab Competences Valentin Kammerlohr , Anke Pfeiffer, Dieter Uckelmann Hochschule für Technik Stuttgart, Stuttgart, Germany	Process of Adapting a Local Laboratory to connect to an Online Laboratory System Based on Standard Definitions and Open Source Technologies. Luis Felipe Zapata Rivera¹ , Maria. M Larrondo-Petrie ² , Basar Sahinbeyoglu ³ , Serhan Argun ⁴ 1: LACCEI, Inc; 2: LACCEI, Inc; 3: ACROME; 4: ACROME	"Hidden" Integration of Industrial Design-Tools in E-Learning Environments Karsten Henke , Johannes Nau, René Hutschenreuter, Robert-Niklas Bock, Heinz-Dietrich Wuttke Ilmenau University of Technology, Germany
	STEM Education on Equal Terms Through the Flipped Laboratory Approach. Lena Claesson¹ , Mirka Kans ² , Lars Håkansson ² , Kristian Nilsson ¹ 1: Blekinge Institute of Technology, Sweden; 2: Linnaeus University, Sweden	Manufacturing and Developing Remote Labs in Physics for Practical Experiments in the University Zineb Laouina , Lynda Ouchaouka, Ali Elkhebch, Mohamed Moussetad, Mohamed Radid, Yassine Khazri, Ahmed Asabri Hassan II University of Casablanca Morocco, Morocco	Enabling Software Defined Networking for Industry 4.0 using OpenStack Venkata Vivek Gowripeddi , Nithya Ganesan, Samar Shailendra, Thangaraju B International Institute of Information Technology, Bangalore, India
	Using Constructive Alignment to Evaluate Industry 4.0 Competencies in Remote Laboratories for Manufacturing Technology Claudius Terkowsky¹ , Dominik May² , Silke Frye ¹ 1: TU Dortmund University, Germany; 2: University of Georgia, Athens, USA	Comparing Virtual Reality SDK Potentials for Engineering Education Pascalis Trentsios , Mario Wolf, Detlef Gerhard Digital Engineering Chair, Ruhr-University Bochum, Germany	Role of Education 4.0 Technologies in Driving Industry 4.0 Venkata Vivek Gowripeddi^{1,2} , Manav Chethan Bijjahalli ³ , Nikhil Janardhan ² , Kalyan Ram Bhimavaram ⁴ 1: International Institute of Information Technology, Bangalore, India; 2: Cymbeline Innovation Private Limited, Bangalore, India; 3: Dr Ambedkar Institute of Technology, Bangalore, India; 4: BITS - Pilani KK Birla Campus, Goa, India
10:00am - 10:30am	Coffee Break Location: Kellogg Concourse (exhibition & breaks) Coffee, tea, water, and light refreshments will be offered		
10:30am - 12:00pm	PLENARY 4: Plenary Session IV Location: Room K/L (plenary) Chair: Dominik May , University of Georgia Plenary session with keynotes from academia and industry Isa Jahnke (University of Missouri): "Meaningful Learning With Technologies" Dan Schaffer (Phoenix Contact): "Next-Generation Cybersecurity in Factory Automation and Control"		
12:00pm - 1:30pm	Lunch Break Location: Magnolia Ballroom (lunch) Buffet style lunch, displaying the southern US cuisine		
1:30pm - 3:00pm	PS-E1: Parallel Session E1 Location: Room F/G (breakout #1) Chair: Lena Claesson , Blekinge Institute of Technology Remote Experimentation Full paper submission presentations (20 mins each) and discussion	PS-E2: Parallel Session E2 Location: Room T/U (breakout #2) Chair: Javier Garcia-Zubia , University of Deusto Control Systems and Data Analysis Full paper submission presentations (20 mins each) and discussion	PS-E3: Parallel Session E3 Location: Room V/W (breakout #3) Chair: Sulamith Frerich , Ruhr-Universität Bochum Big Data in Engineering Full paper submission presentations (20 mins each) and discussion
	Fpga Remote Laboratory: Experience in Upna and Unifesp Candido Aramburu¹ , Ana Lucia Beraldo ² , Aitor Villar-Martinez ^{3,4} , Luis Rodriguez-Gil ³ , Wilson Francisco Moreira de Souza Seron ² , Tiago de Oliveira ² , Pablo Orduña ^{3,4} 1: Public University of Navarre, Spain; 2: Universidade Federal de São Paulo, Brazil; 3: LabsLand; 4: University of Deusto, Bilbao, Spain	Adaptive Control System For Technological Type Control Objects Vladlen F. Shapo , Maksym V. Levinskyi National University "Odessa Maritime Academy", Ukraine	Evaluation of a Big Data system for online search (case study) Karim Aoulad Abdelouarit , Boubker Sbihi, Noura Aknin Abdelmalek Essaadi University, Morocco
	Potential of Embedded Processors and Cloud for Remote Experimentation Misbah Mohammed , Suresh Vakati, Abul Azad NIU, United States of America	Development of a Testing Device for Measuring the Functional Parameters of UAV Recovery Systems Sebastian Pop , Marius Cristian Luculescu, Luciana Cristea, Attila Laszlo Boer, Constantin Sorin Zamfira Transilvania University of Brasov Romania, Romania	Objective Construction of Ground Truth Images Mark Smith¹ , Ananda Maiti ² , Andrew Maxwell ¹ , Alexander A Kist¹ 1: University of Southern Queensland, Australia; 2: Discipline of ICT, University of Tasmania, Newnham, Australia
	Analog Electronic Experiments in Ultra-concurrent Laboratory Narasimhamurthy K C¹ , Luis Rodriguez Gil ² , Pablo Orduña^{2,3} , Bharath GC ¹ , Susheen Srivatsa CN ¹ , Karthik Mulamuttal ¹ 1: Siddaganga Institute of Technology, India; 2:	Measuring Noise Impact In The Cities Through A Remote And Mobile Sonometer Unai Hernández , Amaia Goñi, Javier Vicente University of Deusto, Deusto Institute of Technology (DeustoTech)	Use Of Data Mining For Root Cause Analysis Of Traffic Accidents in Colombia. Hernando Vélez Sanchez , Heberto Saavedra universidad distrital francisco jose de caldas, Colombia

LabsLand, Spain; 3: University of Deusto, Spain

3:00pm **CLOSE: REV 2020 Closing Session & Awards**

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Location: [Room K/L \(plenary\)](#)

3:30pm

Chair: **Dominik May**, University of Georgia

Chair: **Kalyan Ram Bhimavaram**, Electrono Solutions Pvt Ltd

REV 2020 official closing session with the best paper award presentation and a outlook to REV2021

3:30pm **Farewell Coffee**

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Location: [Kellogg Concourse \(exhibition & breaks\)](#)

4:00pm

Coffee, tea, water, and light refreshments will be offered