



WEED & GEDC 2020 VIRTUAL CONFERENCE 16 - 19 NOVEMBER

DISRUPTIVE ENGINEERING EDUCATION AMIDST GLOBAL CHALLENGES

PROGRAM

CENTRAL AFRICAN
TIME (CAT)

EASTERN STANDARD
TIME (EST)

MONDAY 16 NOVEMBER 2020				
SESSION 1 08:30–10:00 (CAT) 01:30–03:00 (EST)	STUDIO 1	Research Papers: Teamwork and Mentoring Research Papers: Transition to University	08:30–09:20 09:30–10:20	01:30–02:20 02:30–03:20
	STUDIO 2	Workshop: Effect of Pandemic on Education Topic - Insights from Students During Emergency Remote Teaching (Presenters: Johannes Spaas, Daniel Garcia, Raquel Pérez, Yoel Alonso, Vladica Pasic, Liisi Raudväli, BEST)	08:30–10:00	01:30–03:00
SESSION 2 10:30–12:00 (CAT) 03:30–05:00 (EST)	STUDIO 1	Workshop: Crisis Online Learning Topic - Actionable Insights from Engineering Educators During Emergency Remote Teaching. (Presenters - Karin Wolff and Johnson Carroll)	10:30–12:00	03:30–05:00
	STUDIO 2			
SESSION 3 12:30–14:00 (CAT) 05:30–07:00 (EST)	STUDIO 1	Research Papers: Online and Blended Learning 1	12:30–13:30	05:30–06:30
	STUDIO 2	Workshop on Effect of Pandemic on Education Topic - Challenge-based Case Study (Presenters: Johannes Spaas, Daniel Garcia, Raquel Pérez, Yoel Alonso, Vladica Pasic, Liisi Raudväli, BEST)	12:30–14:00	05:30–07:00
SESSION 4 14:30–16:15 (CAT) 07:30–09:15 (EST)	STUDIO 1			
	STUDIO 2	Opening Ceremony: IFEEES President - Prof Ramiro Jordan GEDC Chair - Prof Sirin Tekinay IFEEES General Secretary – Prof Hans J. Hoyer WFEO President - Prof Gong Ke GCC – Prof Sunil Maharaj TPC Chair - Dr Helen Inglis Keynote Speaker Prof. Barbara Oakley Topic: Active Learning: Those Words Do Not Mean What You Think They Mean	14:30–15:30 15:30–16:15	07:30–08:30 08:30–09:15
SESSION 5 16:30–18:45 (CAT) 09:30–11:45 (EST)	STUDIO 1	Research Papers: Student Experience and Perspective	16:30–17:30	09:30–10:30
	STUDIO 2	Presidents Forum: Topic: How can universities thrive in/post Covid-19 Moderator - Prof Wikus Van Niekerk Presenters - Prof Tawana Kupe, Dr Irma Becerra and Prof Simone Buitendijk Keynote Speaker: Prof Beville A. Watford Topic: Broadening Participation in Engineering: Where are we and where are we going? Panel on diversity (Presenter: Naadiya Moosajee, WomEng)	16:30–17:30 17:30–18:00 18:00–18:45	09:30–10:30 10:30–11:00 11:00–11:45
SESSION 6 19:00–21:30 (CAT) 12:00–14:30 (EST)	STUDIO 1	Consolidation Session Engineering Education of the Future Topic - From the number of activities surrounding engineering education, at the consolidation session, we approach the results of the first day at the WEED&GEDC conference discussing engineering education from both Academic and Student perspectives (presenters: Yashin Brijmohan and Aniek van Kersen)	19:00–20:30	12:00–13:30
	STUDIO 2	Phoenix Contact: Shaping the Future Topic - From strategy to implementation: Shaping the future for the All Electric Society Speakers - Klaus Hengsbach and Jenny Schaffrath Amazon Web Services Speaker: Thandi Majola Topic - How educational institutions are leveraging the AWS cloud to enable virtual learning & digital skills development	19:00–19:30 19:30–20:00	12:00–12:30 12:30–13:00

PROGRAM

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TUESDAY 17 NOVEMBER 2020

SESSION 1 08:30–10:00 (CAT) 01:30–03:00 (EST)	STUDIO 1	Research Papers: Assessment	08:30–09:20	01:30–02:20
	STUDIO 2	Research Papers: Online and Blended Learning 2	09:30–10:30	02:30–03:30
	STUDIO 3	Workshop: Transformation of Learning Technologies: <i>Topic</i> - A Futuristic Look Towards Learning (Presenters: Ruoyi Lian, Tianjin University and Youchi Zhang, Tsinghua University)	08:30–10:00	01:30–03:00
SESSION 2 10:30–12:00 (CAT) 03:30–05:00 (EST)	STUDIO 1	Research Papers: Connection to engineering workplace	11:00–12:00	04:00–05:00
	STUDIO 2	Panel Session: <i>Topic</i> - Lifelong Learning and sustainability in engineering education (Presenters - AFEO President M.Manuhwa & Dr Soma Chakrabarti)	10:30–12:00	03:30–05:00
	STUDIO 3	Panel Session: <i>Topic</i> - Financing Peace: A financial proposition on the value of peace, empowering engineers to make meaningful financial change (Presenters: Mark Nelson, Peace Innovation Lab at Stanford and Lucia Vina Lopez, Peace Innovation Institute)	10:30–12:00	03:30–05:00
SESSION 3 12:30–14:00 (CAT) 05:30–07:00 (EST)	STUDIO 1	Research Papers: Graduate attributes for future engineers	13:00–14:00	06:00–07:00
	STUDIO 2	Speaker: Mr Sun Gang; <i>Topic:</i> The Huawei Vision of Industry-Academy Collaboration	12:30–13:30	05:30–06:30
	STUDIO 3	Altair Presenter: Mr Armin Veitl <i>Topic:</i> Project-based Learning with Digital Twins for Mechatronics in Engineering Education	13:30–14:00	06:30–07:00
SESSION 4 14:30–16:15 (CAT) 07:30–09:15 (EST)	STUDIO 1	Panel Session: <i>Topic</i> - Inclusivity in Engineering + Intercultural Competencies: Intersectionality and Empathy in Engineering & The Human-Centered Engineer Keynote: Dr Mira Olson (Presenters - Rachael Lau, Duke University and Laura Restrepo Alameda, SPEED)	12:30–14:00	05:30–07:00
	STUDIO 2	Workshop: Mental Wellbeing <i>Topic:</i> Exhaustion and Authenticity in your career as an academic staff member (limited to 20 attendees) (Presenters - Lelanie Smith and Rebecca Broadbent)	14:30–16:30	07:30–09:30
	STUDIO 3	Keynote Speaker: Mr Xavier Fouger (Dassault Systemes) <i>Topic:</i> GEDC, a network at work - A journey towards educational innovation	14:30–15:15	07:30–08:15
SESSION 5 16:30–18:45 (CAT) 09:30–11:45 (EST)	STUDIO 1	Keynote Speaker: MathWorks Mr Michael Carone <i>Topic:</i> Digital Transformation through the systematic use of data and models	15:15–15:45	08:15–08:45
	STUDIO 2	IFEES Duncan Fraser Award: Dr S. Solby	15:45–16:30	08:45–09:30
	STUDIO 3	Workshop: Designing the Cities of Tomorrow 1 <i>Topic</i> - 24-hour hackathon competition where students will be grouped into multidisciplinary teams of 4-5, challenge presentation (Presenters: María Laura Polo González, SPEED and Faith Mzandu, WomEng)	14:30–16:00	07:30–09:00
SESSION 6 19:00–21:30 (CAT) 12:00–14:30 (EST)	STUDIO 1	Consolidation Session: Mental Health & Wellness in Engineering <i>Topic</i> - In the midst of a global pandemic, mental health becomes a crucial topic of reflection, as well as a personal and social responsibility to take care of our health. This consolidation session will bring upfront the importance of mental health in the engineering scenario. Keynote - M.D. Victoria Gómez Gallo	16:30–18:00	09:30–11:00
	STUDIO 2	Workshop: Inclusivity in Engineering + Intercultural Competencies <i>Topic:</i> Engagement Session (Presenters - Rachael Lau, Duke University and Laura Restrepo Alameda, SPEED)	18:00–18:45	11:00–11:45
	STUDIO 3	The Emerging Tech Foundation Presenter: Prasad Mavuduri <i>Topic:</i> Disruptive Digitization - Industry 4.0: Preparing Students for the next Industrial Revolution with Emerging Technologies	16:30–17:30	09:30–10:30
SESSION 7 19:00–21:30 (CAT) 12:00–14:30 (EST)	STUDIO 1	MathWorks/Quanser & McMaster Univ Speakers: Dr Will Greenwood, Mr Paul Karam and Prof Ishwar Puri Title - Advancing Engineering Education with Virtual Labs	17:30–18:45	10:30–11:45
	STUDIO 2	Panel Session: <i>Chair of Session:</i> Prof Uriel Cukierman; <i>Panelists</i> - JL Roces, MG Mejia, J Fernandez and JD Abascal <i>Topic:</i> Role of Ibero-American Engineering Academies	19:00–20:15	12:00–13:15
	STUDIO 3	LATAM GEDC Meeting Hosted by Dr Adriana Pino	20:15–21:30	13:15–14:30
SESSION 8 19:00–21:30 (CAT) 12:00–14:30 (EST)	STUDIO 1	Panel Session: <i>Topic</i> - Peace Engineering in Security and the Rule of Law: Sharing global security solutions to increase ethical design in engineering (Presenter: Prof. Joseph Hughes, Drexel University) Keynote: Dr Alpaslan Özerdem <i>Topic</i> - Peace Engineering	19:00–20:30	12:00–13:30

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WEDNESDAY 18 NOVEMBER 2020

SESSION 1 08:30–10:00 (CAT) 01:30–03:00 (EST)	STUDIO 1	Research Papers: Faculty Development and Student Engagement Research Papers: Ethics	08:30–09:20 09:30–10:20	01:30–02:20 02:30–03:20
	STUDIO 2	Panel Session: Topic - New Careers and Opportunities + Young Engineers, Future Thinking, Employment, Innovation, and Entrepreneurship (Presenters: Sanket Dhadke, SCALE and Faith Mzandu, WomEng)	08:30–10:00	01:30–03:00
	STUDIO 3			
SESSION 2 10:30–12:00 (CAT) 03:30–05:00 (EST)	STUDIO 1	Workshop: Ethics in Engineering Education Topic - Workshop on teaching ethics within engineering <i>(limited to 45 attendees)</i> (Presenters - Alison Gwynne-Evans, Marianne Camerer, Lyn Horn, Paula Saner and Manimagalay Chetty)	10:30–12:30	03:30–05:30
	STUDIO 2	Keynote Speaker: Mr Hakan Bulgurlu Topic: Roadmap to Post-covid recovery: Sustainability and Resilience Book Launch: 'Rising to the Top'. Dr Soma Chakrabarti and Prof Sirin Tekinay	10:30–11:00 11:00–11:45	03:30–04:00 04:00–04:45
	STUDIO 3	Workshop: African Engineering Education Research Network (EERN) Topic = African Engineering Education Research Network (Presenters - Lelanie Smith, Esther Matemba, Aida Guerra and Mike Klassen)	10:30–12:30	03:30–05:30
SESSION 3 12:30–14:00 (CAT) 05:30–07:00 (EST)	STUDIO 1	Theme: Engineer Education Global Interface Session Chair - Yashin Brijmohan Panel Members: (ICEE) UNESCO - Prof Wu Qidi; WFEO - Prof Charlie Than; UNESCO, Director, Division of Science Policy and Capacity-Building - Dr Peggy Oti-Boateng; FEIAP - Dr Chuah Hean Teik	12:30–14:00	05:30–07:00
	STUDIO 2	Consolidation Session: Workplace of the Future Topic - The third consolidation session will start with a keynote where participants will be invited to reflect on the importance of the workplace of the future. A panel of young professionals and engineers will jointly discuss subjects pertinent to the workplace: inclusivity, new careers and opportunities, cities of tomorrow, entrepreneurship, and the youth movement	12:30–14:00	05:30–07:00
	STUDIO 3			
SESSION 4 14:30–16:15 (CAT) 07:30–09:15 (EST)	STUDIO 1	Research Papers: Programme Development, Reform, and Evaluation	15:30–16:30	08:30–09:30
	STUDIO 2	GEDC Diversity Award Ceremony Session Lead - Prof Sirin Tekinay Session Chair - Prof Ken Ball GEDC Assembly (Prof Hans Hoyer / Prof Sirin Tekinay)	14:30–15:15 15:15–16:00	07:30–08:15 08:15–09:00
	STUDIO 3	Workshop: Designing the Cities of Tomorrow 2 Topic - Siemens Keynote (Dora Smith - Closing the engineering skills gap in the age of digitalization) Results presentation (Presenters: María Laura Polo González, SPEED and Faith Mzandu, WomEng)	14:30–16:00	07:30–09:00
SESSION 5 16:30–18:45 (CAT) 09:30–11:45 (EST)	STUDIO 1	Research Papers: Progression, retention, attrition, and persistence	16:45–17:45	09:45–10:45
	STUDIO 2	Speakers: SDG Topic: Why Every Engineering Graduate Needs to be Environmentally Focused? (Presenters: Prof Cindy Cooper & Dr Michael Milligan) ABET Panel Session Chair of Session - Dr Michael Milligan Panelists - Dr J. Sussman, Prof W Erevelles, Prof S Conry, Prof D Tomasko and Prof J Fergus Topic - Accreditation Reviews in the COVID-19 World	16:30–17:30 17:30–18:45	09:30–10:30 10:30–11:45
	STUDIO 3	Workshop: Climate Reality and Environmental Activism: Topic - Truth in 10: from Al Gore's Climate Reality Project and Ecological Footprint tutorial (Presenters: Felipe Gómez Gallo, SPEED and Laura Restrepo Alameda, SPEED)	17:30–18:45	10:30–11:45
SESSION 6 19:00–21:30 (CAT) 12:00–14:30 (EST)	STUDIO 1			
	STUDIO 2	Consolidation Session Peace Engineering Strategy Session Topic - The strategy session aims to highlight the outcomes of all the different sub-themes pertaining to the overarching themes: Disruptive Engineering Education, and SDGs to Action. Keynote - Dr Bernard Amadei (Presenters: Yashin Brijmohan, Aniek van Kersen, Felipe Gomez Gallo)	19:30–20:00	12:30–13:00
	STUDIO 3			

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THURSDAY 19 NOVEMBER 2020

SESSION 1	STUDIO 1			
SESSION 2	STUDIO 1			
SESSION 3	STUDIO 1			
SESSION 4 14:30–16:15 (CAT) 07:30–09:15 (EST)	STUDIO 1	Altair <i>Presenter:</i> Mark Burns <i>Topic</i> - Boosting engineering education by combining the power of data science with simulation Speaker: Siemens CEO, Ms Dall'Omo <i>Topic</i> - Siemens, Advancing Digitalization in Africa Speaker: Mr Tommie Chambers (Siemens) <i>Topic</i> - Digital Twins for Education Speaker: Ms Dora Smith (Siemens) <i>Topic</i> - Academia 4.0: Empowering the next generation of digital talent	14:30–15:00	07:30–07:45
			15:15–16:15	08:15–09:15
SESSION 5 16:30–18:45 (CAT) 09:30–11:45 (EST)	STUDIO 1	IFEES General Assembly Session Chair - Prof Ramiro Jordan Closing Plenary: 2021 Conference Promotion: Madrid 2020 General Conference Chair Vote of thanks IFEES Outgoing President Address GEDC Chair Closing Address Conference reflection, resolution and wrap-up by 2020 General Co-Chair IFEES President Elect Address Conference Closure	16:30–17:15	09:30–10:15
			17:15–18:00	10:15–11:00
SESSION 6	STUDIO 1			