

LAEDC 2022 Preliminary Program

All times are listed in Puebla, México local time (UTC -5)

	July 3 rd	Day 1 – July 4 th		Day 2 – July 5 th		Day 3 – July 6 th	
8:00am		Registration 7:30 a.m. – 5:30 p.m.		Registration		Registration	
8:30am	MOS-AK	Opening Ceremony Edmundo Gutierrez, PhD., LAEDC Chair IEEE EDS Welcome Fernando Guarin, PhD., EDS Senior Past President Keynote: “Hunting a supermassive black-hole in the center of the Milky Way with the Event Horizon Telescope” David Hughes, PhD.		Session Chair: Edmundo Gutierrez Keynote: “Chips, dies, chiplets and dielets and heterogeneous integration” Subramanian Iyer, PhD.		Session Chair: Edmundo Gutierrez “OTFT neuro-inspired circuits for classification tasks” Laurie E. Calvet, PhD. “Integrating new technology elements to enable a 4000+ qubit quantum computer” Ricardo Donaton, PhD.	
9:30am		Coffee Break		Coffee Break		Coffee Break	
10:00am	MOS-AK	Session 1A THz Session Chair: Fernando Guarin Invited Speakers + François Danneville + Daniel Tomaszewski	Session 1B 2D - Cryogenic Session Chair: Edmundo Gutierrez Invited Speakers + Theresia Knobloch + Enrique G. Marin + Giuseppe Iannaccone	Session 4A Semiconductor reliability Session Chair: Fernando Guarin Invited Speakers + Sebastian Matias Pazos + Fernando Guarin + Fernando Silveira + Gerardo Malavena	Session 4B Circuit-device interaction Session Chair: Lionel Trojman Invited Speaker + Javier Diaz-Fortuny	Session 7A1 Electron Devices for Quantum Computing Session Chair: Edmundo Gutierrez Session 7A2 Computational Electronics Invited Speakers + Dragica Vasileska + Allan Granados	Session 7B Technology roadmaps Session Chair: Mario Aleman Invited Speakers + Kishore Kumar Kadari
12:30pm		Lunch		Lunch		Lunch	
2:00pm	Mini Colloquium	Session 2A1 THz Session Chair: Fernando Guarin Invited Speakers + Cristell Maneux + Christoph Jungemann + Pascal Xavier Session 2A2 HAC Workshop Sampathkumar Veeraraghavan IEEE HAC Chair	Session 2B Semiconductor-, MEMS- and Nanotechnologies Session Chair: Wilfrido Moreno Invited Speaker + Sourabh Khandelwal	Session 5A Novel materials and process modules Session Chair: Arturo Escobosa Invited Speakers + Radu A. Sporea + Eugenio Cantatore + Abhilasn Sugunan	Session 5B Modeling and simulation Session Chair: Benjamín Iñiguez Invited Speaker + Lionel Trojman	Session 8A Optoelectronics, photovoltaic and photonic devices, and systems Session Chair: Lluís F. Marsal	Session 8B1 All electron-based devices Session Chair: Laurie E. Calvet Invited Speaker + Gilson Wirth + Hans Kleemann Session 8B2 Sensors and actuators
3:00pm							
3:30pm		Coffee Break & Poster Exhibition		Coffee Break & Poster Exhibition		Coffee Break	
4:00pm	Mini Colloquium	Session 3A Biomedical Devices Session Chair: Lluís F. Marsal Invited Speaker + Luis Kun	Session 3B Temperature Dependence Session Chair: Benjamín Iñiguez	Session 6A Novel materials and process modules Session Chair: Lluís F. Marsal Invited Speaker + Khoirom Johnson Singh	Session 6B Panel session in Humanitarian Technology Session Chair: Fernando Guarin Invited Speakers + Pritpal Singh + Sampath Veer. + Morgan Kiani + Luis Kun	Session 9A All electron-based devices Session Chair: Patricia Guzmán	
5:30pm		Keynote: “Invention of the Transistor 75 years ago; The Origin of Device Miniaturization towards Super-Intelligent Society” Hiroshi Iwai, PhD		Keynote: “Recent Developments and Future Trends in Solar Photovoltaics” Martin Green, PhD			
6:30pm		Cocktail Reception Panel session and networking Young Professionals and Women in Engineering Session Chair: Mario Aleman		Dinner Gala - 7pm Best Paper Award		Closing Ceremony	

#	Time	Authors	Title	Country	Invited	On Line	In Person
35	10:00	François Danneville	Challenges to measure RF noise and intermodulation performances of mmW/THz devices	France	✓	✓	
37	10:30	Daniel Tomaszewski, Michał Zaborowski, Jacek Marczewski and Paweł Bajurko	Field-Effect Transistors as THz radiation detectors	Poland	✓	✓	
11	11:00	Yunfan Peng and Liguu Sun	A Compact HMSIW Coupler Based on Slow Wave Structures	China		✓	
17	11:15	Ahmed Alqurashi, James Sexton and Mohamed Missous	Development of 100 GHz resonant tunnelling diodes based oscillator	United Kingdom		✓	
31	11:30	Palak Srivastava, Km Anjali and Amanpreet Singh Saini	Design Of a Siw Based Slot Antenna For Terahertz Frequency	India			
80	11:45	Lucas Nyssens, Martin Rack, Dimitri Lederer and Jean-Pierre Raskin	Effect of probe coupling on MOSFET series resistance extraction up to 110 GHz	Belgium			✓
39	12:00	Eduardo Ibarra Medel, Miguel Velázquez, Daniel Ferrusca and Stan Kurtz	Design and construction of a Low-Noise L-Band Amplifier for the Tulancingo I radio Telescope.	Mexico			✓
41	12:15	Omar Jordán-García, Eloy Ramírez-García, David Jiménez and Anibal Pacheco-Sanchez	Lumped model-based analysis of hBN RF switches	Mexico		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
135	2:00	Cristell Maneux	Circuit Design Flow dedicated to 3D vertical nanowire FET	France	✓		
25	2:30	Christoph Jungemann, Maziar Noei and Tobias Linn	Device Simulation of the Dyakonov-Shur Plasma Instability for THz Wave Generation	Germany	✓	✓	
29	3:00	Pascal Xavier and Tan Phu Vuong	RF printed electronic devices using bio-sourced materials: risks and opportunities	France	✓	✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
	10:00	Theresia Knobloch	Scalable and Reliable Gate Insulators for 2D Material-Based FETs	Austria	✓		
119	10:30	Giuseppe Iannaccone	Analog neuromorphic circuits using devices based on 2D materials and on CMOS technology	Italy	✓		
112	11:00	Enrique G. Marin	2DM-based nanoelectronic devices from a multiscale perspective (invited)	Spain	✓		
93	11:30	Masayuki Ichikawa, Takahisa Tanaka, Ken Uchida, Tomohisa Miyao, Munehiro Tada and Hiroki Ishikuro	In Situ Monitoring Technique of Self-Heating in Bulk MOSFETs at Cryogenic Temperatures using Subthreshold Current	Japan			✓
97	11:45	J. Federico Ramirez Rios, Alfonso Pérez Garcia, Mario Moreno Moreno and Alfredo Morales Sánchez	2D simulation of the resistive state in bipolar resistive switching memories based on oxygen vacancies	Mexico			
69	12:00	Jairo Méndez-V., Dragica Vasileska, Katerina Raleva and Edmundo A. Gutiérrez-D.	Modeling Self-Heating Effects in Nanometer SOI Devices at Cryogenic Temperatures	Mexico			

#	Time	Authors	Title	Country	Invited	On Line	In Person
12	2:00	Danial Bavi and Sourabh Khandelwal	Self-consistent Compact Modeling of First- and Third Quadrant I-V behavior in SiC MOSFETs	Australia	✓	✓	
28	2:30	Rituraj S. Rathore, Ashwani K. Rana and Viranjay M. Srivastava	Impact of Oxide Thickness Fluctuation for Resist- and Spacer-Defined FinFETs	South Africa		✓	
30	2:45	Jesús Jiménez-León, Arturo Sarmiento and Pedro Rosales Quintero	An Electrostatic Compact Model for Experimental Memristive Devices	Mexico			
50	3:00	Flávio Enrico Bergamaschi, Gilson I. Wirth, Sylvain Barraud, Mikaël Cassé, Maud Vinet, Olivier Faynot and Marcelo Antonio Pavanello	Extraction of the Back Channel Mobility in SOI Nanowire MOS Transistors under Substrate Biasing	Brazil		✓	
68	3:15	Fernando J. Costa, Renan Trevisoli and Rodrigo T. Doria	Ultra-Low-Power Diodes Composed by SOI UTBB Transistors	Brazil		✓	
81	3:30	Carlos Ascencio-Hurtado, Alfonso Torres, Roberto Ambrosio, Mario Moreno and Alba Arenas-Hernandez	Evaluation of the influence of hydrogen dilution ratio and doping on the properties of a-SiGe:H films	Mexico		✓	
91	3:45	Braulio Palacios-Márquez, Zeuz Montiel-González, Sergio Alfonso Pérez-García, Mario Moreno-Moreno and Alfredo Morales-Sánchez	Study of the resistive switching behavior in Si/N:SiO _x (x<2) multilayer-based MOS devices	México			✓
92	4:00	Arely Vazquez and Joel Molina	Temperature dependence of current-voltage of Al/p-Si(100) and Ti/p-Si(100) Schottky barrier diodes	Mexico			✓

#	Time	Authors	Title	Country	Invited	On Line	In Person
	4:00	Luis Kun	Disparities 2022 and the Global Citizen Safety and Security. A Transformational opportunity for Engineers as Systems “Conductors” of Society Critical Thinking	Uruguay	✓		
9	4:30	Juan Fernando Galindo Jaramillo and Ramon Adrian Salinas Franco	Portable Technology of Low-Cost Image Digitizing for the Screening of Uterine Cancer in Latin America	Brazil		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
5	4:00	Omar López López, Ismael Martínez Ramos, Daniel Durini Romero, Daniel Ferrusca Rodríguez, Edmundo Gutiérrez Domínguez and Adelmo Ortíz Conde	Parameter extraction in a 65nm nMOSFET technology from 300 K down to 3.8 K	Mexico			✓
64	4:15	Michelly de Souza, Antonio Cerdeira, Magali Estrada, Sylvain Barraud, Mikaël Cassé, Maud Vinet, Olivier Faynot and Marcelo Antonio Pavanello	Analysis of the Gate-Induced Drain Leakage of SOI Nanowire and Nanosheet MOS Transistors at High Temperatures	Brazil			✓
86	4:30	Loukas Chevas, Nikolaos Makris, Maria Kayambaki, Thanasis Kostopoulos, Antonis Stavrinidis, George Konstantinidis and Matthias Bucher	A Contribution to GaN HEMT Modeling and Parameter Extraction Including Temperature Dependence	Greece		✓	✓
104	4:45	Camila Alves, Michelly de Souza and D'Oliveira Ligia	Comparative Analysis of Transcapacitances in Asymmetric Self-Cascode and Graded-Channel SOI nMOSFETs	Brazil		✓	
114	5:00	Shruti Pathak, Asifa Amin, Purushothaman Srinivasan, Fernando Guarin and Abhisek Dixit	Impact of Chuck Temperature on Flicker Noise (1/f) Performance of PDSOI n-channel MOSFETs (Invited)	India		✓	
108	5:15	Anuj Bhardwaj, Sujit Singh, Anand Mishra, David Petit, Francois Paolini and Abhisek Dixit	Effect of Negative Back Bias on FDSOI Device Parameters down to Cryogenic Temperature	India		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
58	10:00	Fernando Guarin and Purushothaman Srinivasan	Practical Considerations and methodology for the reliability evaluation of 5G SOI Technologies (Invited)	USA	✓		✓
20	10:30	Sebastian Matias Pazos, Fernando Leonel Aguirre, Felix Palumbo and Fernando Silveira	Reliability-Aware Design Space Exploration for Fully Integrated RF CMOS PA	Argentina	✓		✓
61	11:00	Fernando Silveira	Reliability Aware Design of RF Circuits	Uruguay	✓		✓
57	11:30	Gerardo Malavena, Jurij Lorenzo Mazzola, Matteo Greatti, Christian Monzio Compagnoni, Andrea Leonardo Lacaita, Vincenzo Marano, Michele Lauria, Dario Paci, Fabrizio Speroni and Alessandro Sottocornola Spinelli	Investigation of the Statistical Spread of the Time-Dependent Dielectric Breakdown in Polymeric Dielectrics for Galvanic Isolation	Italy	✓	✓	
27	12:00	Shivendra K. Rathaur, Tsung-Ying Yang, Chih-Yi Yang, Edward Yi Chang, Heng-Tung Hsu and Abhisek Dixit	Time-dependent Multiple Gate Voltage Reliability of Hybrid Ferroelectric Charge Trap Gate Stack (FEG) GaN HEMT for Power Device Applications	Taiwan		✓	
44	12:15	Carlos Alfredo Pelcastre Ortega and Mónico Linares Aranda	An alternative radiation hardened by layout design in a CMOS technology	Mexico			✓

#	Time	Authors	Title	Country	Invited	On Line	In Person
116	10:00	Javier Diaz-Fortuny, Pablo Saraza-Canflanca, Michiel Vandemaele, Erik Bury, Robin Degraeve and Ben Kaczer	Dedicated ICs for the Characterization of Variability and Aging Studies and their Use in Lightweight Security Applications	Belgium	✓	✓	
8	10:30	Alejandro David Martinez Rojas	Front-End electronics to read out thin Ultra-Fast Silicon detectors for ps resolution FAST3	Italy		✓	
54	10:45	Manuel Almada, Federico Sandoval and Rodolfo Sanchez	Integrated NMOS Differential Amplifier	Mexico			✓
82	11:00	Silvana Guitarra, Lionel Trojman, Laurent Raymond and Martín Gavilanez	Analysis of the reset transition in bipolar HfO ₂ -based ReRAM to improve modeling accuracy	Ecuador			✓
90	11:15	Silvestre Salas-Rodríguez, Jaime Martínez-Castillo and Joel Molina-Reyes	Optimization of a-SiGe:H Thin Film Transistors with HfO ₂ as gate insulator by TCAD simulations	México		✓	
94	11:30	Ricardo Bolanos-Perez, Alejandro Diaz-Sanchez, José Miguel Rocha-Perez, Jaime Ramirez-Angulo, Alejandro Bautista and Pedro Isaac Morales-Lopez	Low Voltage and Low Power AC Coupled Instrumentation Amplifier	Mexico			
101	11:45	Daniel Flores, Cinthia Irias and Daniel Martínez	Modular design of the Digital Control and Measurement System of a Falling Weight Deflectometer	Honduras		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
66	2:00	Radu A. Sporea	Design routes toward optimal contact-controlled thin-film transistors	United Kingdom	✓	✓	
103	2:30	Marco Fattori and Eugenio Cantatore	Flexible sensing surfaces based on printed electronics	Italy	✓	✓	
115	3:00	Wei Zhao, Subimal Majee and Abhilash Sugunan	An Eco-friendly graphene ink for inkjet printing	Sweden	✓		
7	3:30	Israel E. Zapata De Santiago and Alfonso Torres Jacome	Test structures for ZT thin-film thermoelectric characterization using laser as a heat source	Mexico		✓	
67	3:45	Ananya Bhattacharjee and Ratul Kumar Baruah	Electrical Performance of Fractal Web as Flexible Interconnects	India		✓	

	2:00	Lionel Trojman	The III-V materials as new perspective for the electronic power applications: the specific case of the Energy Harvester system	France	✓		
4	2:30	Shubhankar Sharma, Yi Zheng and Hiu Yung Wong	Short Circuit Ruggedness of Trench Filled Superjunction Devices	USA		✓	
14	2:45	Antonio Cerdeira, Magali Estrada, Genaro da Silva, Jaime Rodrigues and Marcelo Pavanello	Modeling of silicon stacked nanowire and nanosheet transistors at high temperatures	Mexico			✓
15	3:00	Andres Felipe Jaramillo Alvarado, Pedro Rosales Quintero, Alfonso Torres Jacome and Francisco Javier De la Hidalga Wade	Nonlinear Applications, State Equations and Simulations for Piezoelectric Materials	Mexico			✓
16	3:15	Malte Koch, Hsing Tseng, Anton Weissbach, Benjamin Iniguez, Karl Leo, Alexander Kloes, Hans Kleemann and Ghader Darbandy	Numerical Modeling of Organic Electrochemical Transistors	Germany		✓	✓
18	3:30	Priyanshi Goyal and Harsupreet Kaur	Exploring the suitability of Dual Step Gate Oxide Design on β – Ga ₂ O ₃ MOSFET for High Power Microwave Applications – Part I	India		✓	
48	3:45	Viswanathan Naveen Kumar, Dragica Vasileska and Michael Povolotskyi	Modeling Alloy Clustering Limited Low-Field Electron Mobility in GaN FinFETs	USA		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
62	4:00	Khoirom Johnson Singh, Lomash Chandra Acharya, Mahipal Dargupally, Anand Bulusu and Sudeb Dasgupta	Post-CMOS Devices: Landau's Anisotropy Sensitivity Analyses for Organic Ferroelectric Gate Stack and Its Application to NCTFET	India	✓	✓	
98	4:30	Alba Arenas-Hernandez, Carlos Zuñiga, Alfonso Torres Jacome, Mario Moreno, Julio César Mendoza Cervantes, Carlos Roberto Ascencio-Hurtado and Abdu Orduña-Díaz	Chemical polishing of titanium foil and detachment of TiO ₂ nanotubes as key synthesis parameters to gas sensing applications	Mexico		✓	
99	4:45	Cesar de Jesus Alarcon-Hernandez, Alba Arenas-Hernandez, Abel Garzon-Roman and Carlos Zuñiga-Islas	Comparison of TiO ₂ nanoparticles and Fe ₃ O ₄ @TiO ₂ core-shell nanostructures and their photocatalytic activity	Mexico		✓	
107	5:00	Juan Ponce-Hernández, Antonio Estrada-Torres, Eloy Rodríguez-Vázquez and Victor S. Balderrama	On-Line PEM Fuel Cell Hydration Marker Based on Frequency Response Analysis	Mexico		✓	

Invited Panelists:

- + Pritpal Singh, PhD
- + Sampathkumar Veeraraghavan, M.Sc.
- + Morgan Kiani, PhD
- + Luis Kun, PhD

#	Time	Authors	Title	Country	Invited	On Line	In Person
123	10:00	Ricardo Donaton	Integrating new technology elements to enable a 4000+ qubit quantum computer - INVITED	USA	✓		
	10:30	Stefan van Waasen	How to build a universal quantum computer? – The scaling challenge	Germany	✓		
33	10:45	Anika Zaman and Hiu Yung Wong	Study of Error Propagation and Generation in Harrow-Hassidim-Lloyd (HHL) Quantum Algorithm	USA		✓	
85	11:00	Joel Molina-Reyes	ALD for Advanced Logic, Memory, Sensing and Quantum Technologies	Mexico			
102	11:15	Harsaroop Dhillon and Hiu Yung Wong	Simulation of Single-shot Qubit Readout of a 2-Qubit Superconducting System with Noise Analysis	USA		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
	11:30	Dragica Vasileska	Computational Electronics: An Overview	USA	✓		
	12:00	Allan Granados	System modeling using GO and KPN networks	Costa Rica		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
131	10:00	Ali Shiri Sichani, Kishore Kumar Kadari and Wilfrido A. Moreno	Efficient Signaling for Passive Memristive Crossbars to Prepare them for Spiking Neuromorphic Computing	USA	✓	✓	
32	10:30	Esteban A. Sanabria Villalobos, Luis A. Chavarría Zamora and Leonardo Araya Martínez	A Novel Proposal for a Standalone Compressor and Decompressor Hardware Module from ISA	Costa Rica		✓	
34	10:45	Roberto Pereira Santos and Luis Alberto Chavarria Zamora	Development of a UAV system for estimation of structure from movement for a random target	Costa Rica		✓	
40	11:00	Ernesto Franco and Alfonso Torres	High electrical conductivity of P type a-SiGe:H films deposited by PECVD	Mexico			✓
75	11:15	Luis Alberto Esperanza Hernandez and Victor Rodolfo Gonzalez Diaz	Algorithm for ECG Signal Delineation through Delta-Sigma Modulation	Mexico			
78	11:30	Laura Vanesa De Arco Barraza, Maria José Pontes, Marcelo Eduardo Vieira Segatto, Maxwell E. Monteiro, Carlos A. Cifuentes and Camilo A. R. Díaz	Optical Fiber Angle Sensors for the PrHand Prosthesis: Development, and Application in Grasp Types Recognition with Machine Learning	Brazil		✓	
88	11:45	Marcos Reich, Anselmo Frizera and Camilo Arturo Rodríguez Díaz	Approximate modelling based on genetic algorithm for a POF force sensor for Human-Robot Interaction in Robotic Walker	Brazil		✓	
89	12:00	Ignacio Marín Aguilar, Luis Alberto Chavarria Zamora and Leonardo Araya Martinez	A practical approach to validate the authenticity of identity documents	Costa Rica		✓	

#	Time	Authors	Title	Country	Invited	On Line	In Person
1	2:00	Enas Moustafa, Josep Pallares and Lluís Marsal	Dependency of Current Generated Upon Thermal Treatment Duration in Non-fullerene Organic Solar Cells	Spain		✓	
23	2:15	Benisha Chris A and Somyaranjan Routray	Performance Analysis in Kesterite CZGS/CZGSe Quantum Wells towards high-Efficiency Photovoltaic Applications	India			
26	2:30	Shibi Varku, S Routray and K P Pradhan	Contribution of Carrier Quantization Effect towards Performance of Nanostructured CFTS / CFTSe Solar Cells	India		✓	
49	2:45	Mariano Aceves-Mijares, Xochilt Luna-Zempoalteca, Felix Aguilar, Denise Estrada-Wiese and Alfredo González-Fernández	Study of the effect of the aluminum gate on light absorption in a Wavesensor	Mexico			✓
77	3:00	Magaly Ramírez-Como, Enas Moustafa, Alfonsina Abat Amelenan Torimubun, José G. Sánchez, Josep Pallarès and Lluís F. Marsal	Preliminary Study of the Degradation of PM6:Y7 based Solar	Spain		✓	
83	3:15	Mario Moreno, Daniel Ferrusca, Jose de Jesús Rangel, Jorge Castro, Julio Hernández, Ricardo Jiménez, Alfonso Torres, Arturo Ponce, Alfredo Morales, Rodrigo González, Eduardo Mota and Gabriela Amador	Towards an infrared camera based on polymorphous silicon-germanium microbolometer arrays	Mexico			

#	Time	Authors	Title	Country	Invited	On Line	In Person
	2:00	Gilson Wirth	The role of the observation window on the intra- and inter-device variability of RTN	Brazil	✓	✓	
43	2:30	Hans Kleemann, Amric Bonil, Juan Wang and Ghader Darbandy	Vertical Organic Transistors - Approaching the GHz-Threshold with Organic Devices	Germany	✓	✓	✓
45	2:45	Edmundo Gutierrez, Alan Otero and Xiomara Ribero	n-MOS transistor impact ionization boosted by cumulative stress degradation in a 250 nm SiGe BiCMOS technology	INAOE			✓
47	3:00	Roberto Lacerda de Orio, Johannes Ender, Simone Fiorentini, Wolfgang Goes, Siegfried Selberherr and Viktor Sverdlov	About the Switching Energy of a Magnetic Tunnel Junction determined by Spin-Orbit Torque and Voltage-Controlled Magnetic Anisotropy	Austria			✓

#	Time	Authors	Title	Country	Invited	On Line	In Person
21	3:15	Enrique Prieto, Luis Abad, Antonio Cerdeira, Magali Estrada and Benjamín Iñiguez	Sensor readout circuit using AOSTFTs, for IGZO (In-Ga-ZnO) sensors	México			✓
56	3:30	Diego Fernando Valencia Grisales and Claudia Reyes Betanzo	Design of a Thermal Microsensor for Air Flow Rate with Low Power Consumption and High Sensitivity	Mexico			

#	Time	Authors	Title	Country	Invited	On Line	In Person
96	4:00	Jesús Miguel Germán-Martínez, Alfredo Morales-Sánchez, Braulio Palacios-Márquez and Mario Moreno-Moreno	Study of the photoresponse of ITO/SiO ₂ /Si/SiO ₂ /Al MIS capacitor structures	Mexico			✓
70	4:15	Stepan Petrosyan, Varsenik Khachatryan and Ashkhen Yesayan	Nanowire Array Solar Cells	Armenia		✓	
71	4:30	Oscar Velandia, Mario Moreno, Ricardo Jiménez, Alfredo Morales, Alfonso Torres Jacome, Carlos Zúñiga, Pedro Rosales Quintero, Luis Hernandez and Netzahualcoyotl Carlos	Hydrogenated amorphous silicon germanium films doped with nitrogen (a-SiGe:H,N) to improve the long-wave infrared (LWIR) region absorption	Mexico			✓
72	4:45	Aura Ximena González Cely, Teodiano Freire Bastos-Filho and Camilo Arturo Rodríguez Díaz	Wheelchair posture classification based on POF pressure sensors and machine learning algorithms	Brazil		✓	
73	5:00	Francisco Javier Martinez-Rodriguez, Aldair Lara Tenorio, Rodriguez Sanchez Jorge, Alejandro Bautista-Castillo and José Miguel Rocha-Pérez	The Flipped Voltage Follower as a Super-Regenerative Receiver for Internet of Medical Things	Mexico			✓
74	5:15	Braz Baptista Junior, Maria Gloria Cano de Andrade, Luis Felipe de Oliveira Bergamim, Carlos Roberto Nogueira, Renan Baptista Abud and Eddy Simoen	Temperature Dependence of AlGaIn/GaN High Electron Mobility Transistors on 200 mm Si wafers	Brazil		✓	

#	Time	Authors	Title
60	Prachuryya Das, Deepjyoti Deb, Rupam Goswami, Santanu Sharma, Rajesh Saha and Hirakjyoti Choudhury	A Dual Core Source/ Drain GAA FinFET	India
120	Joel Sanabria-Salas	Mouth electronic device control for wheelchair users	Costa Rica
121	Danny Xie-Li and Esteban Arias-Méndez	STEAM Initiatives - Artificial Intelligence in STEM Education in Interactive Hands-on Environment using Open Source Electronic Platforms	Costa Rica
122	Guillermo de Jesús Valdivia Medina	Feasibility Study for the Implementation of Number Portability in Nicaragua	Nicaragua
124	Marta Serantes Melo, Magaly Ramírez-Como, Alfonsina Abat Amelenan Torimtubun, Enas Moustafa, Lluís Marsal and Josep Pallarès	Analysis of the stability of organic photovoltaic cells under indoor illumination	Spain
125	Patrycja Królak, Magaly Ramírez-Como, Enas Moustafa, Alfonsina Abat Amelenan Torimtubun, Lluís Marsal and Josep Pallarès	Analysis of the degradation of high-efficiency encapsulated PM6:Y7-based Photovoltaic Cells	Poland
84	Kishore Kumar Kadari, Ali Shiri Sichani and Wilfrido Moreno	In-Memory Computing driven Wellness Digital Twin utilizing Remote Patient Monitoring System (WDT-RPMS)	USA
106	Ronald Estuardo Alvarez González	Prototype of modular educational board of microcontrollers and electronic devices.	Guatemala
109	Ramiro Plazas-Rosas, Édinson Franco-Mejía and Martha Orozco-Gutierrez	Degradation indicators in power electronic converters	Colombia
117	Gerald Castillo-Picado and Gustavo Fuentes-Quiros	Intelligent monitoring system for fully operational engines	Costa Rica
118	Daniel Torres-Ulate and Keyner Araya-Portuguez	STEM education through modeling and implementation of 3D printing within the biomedical and industrial areas	Costa Rica
127	Sonia Ceron, Miguel A. Dominguez and David Barba	Synthesis of conductive silver nanoparticles for printing electronic applications	Mexico
128	Nupur Navlakha, Leonard F. Register and Sanjay K Banerjee	Emerging 2D Materials for Tunneling Field Effect Transistors	United States
129	Esteban Damián Avendaño Soto, Danniela Cartin Quesada and Anthony Cordero Ramírez	The characterization of the voltage, temperature, distance and flux of atmospheric plasma emission by means of optical emission spectroscopy for applications in medical physics	Costa Rica
130	Jonathan Santiago-Fernandez, Alejandro Diaz-Sanchez, Gregorio Zamora-Mejia and Jose Miguel Rocha-Perez	An 8-bit TDC implemented with two nested Johnson counters	Mexico
132	Ximena Andrea Quevedo Martinez, Camilo Andres Cortes Garzon, Andres Hoyos, Jhon Perez, Santiago Triana Sotelo, Sohel Anwar, Andrea Tovar and Jaime Arcos-Legarda	Active Disturbance Rejection Control for a Self-Driven Race Car in the Indy Autonomous Challenge	Colombia
134	Hirakjyoti Choudhury, Suvankar Paul, Deepjyoti Deb, Prachuryya Das and Rupam Goswami	A Single Memristor-Based TTL NOT Logic	India