

Institute of Electrical and Electronics Engineers (IEEE)  
Region 9 (Latin America and Caribbean)  
Andean Council  
Ecuador Section  
Universidad de las Fuerzas Armadas - ESPE

## Technical Seminars



IEEE Regional Exemplary Student Branch Award  
Universidad de las Fuerzas Armadas - ESPE  
(STB63741)

## IEEE ESPE Student Branch - Secretariat Organization of Technical Seminars

### Objectives:

- Inform and make available to the entire university community the information and tools from IEEE
- Encourage curiosity and motivate students to go beyond classrooms by exposing the latest advances in technology

### International Girls in ICT Day

International Girls in ICT Day is celebrated every year on the fourth Thursday of April. The WIE IEEE ESPE affinity group held an event to celebrate this important date in which academic and motivational conferences were held by Rasa Zalakeviciute PhD in Atmospheric Sciences, Professor at the University of Las Americas; and Engineering students from the University of the Armed Forces ESPE. In addition, in order to introduce girls to science, a programming workshop was carried out through interactive games. It was held on April 23 at 12 pm and had the participation of 40 girls and young people.



Figure 1 Advertising of the WIE Event

### Guidelines for the Transition from Face-to-Face to Virtual Education

The ComSoc Technical Chapter of the IEEE Student Branch of the University of the Armed Forces ESPE in conjunction with the IEEE ComSoc Ecuador Chapter held a seminar on Orientations for the Transition from Face-to-face to Virtual Education by Ing. Verónica Orellana Ms.C, Coordinator of ICT projects, trainer and university teacher. Doctorate student in Technological Management at EPN, Specialist in e-learning and education with ICT. Master in e-business and ICT for management, among others. This conference was directed for teachers due to the current pandemic situation in which it is necessary to explore virtual education options. It was held on April 28, 2020 at 4:30 p.m. and there was a great reception from teachers of the university community.

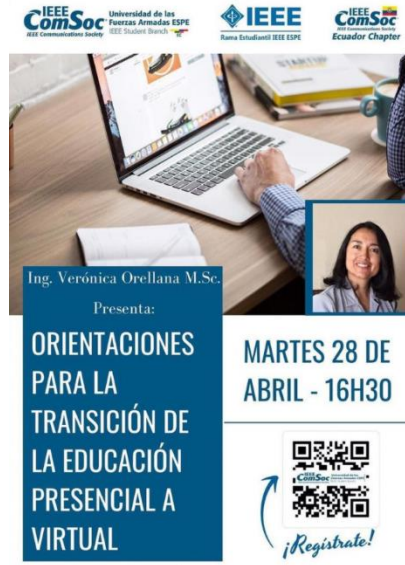


Figure 2 Advertising of the Comsoc Virtual Conference

### *The New Reality of Cisco Certifications and Big Data Oriented to the Retail Sector*

The ComSoc Technical Chapter of the IEEE Student Branch of the University of the Armed Forces ESPE held the seminar "The New Reality of Cisco Certifications and Big Data Oriented to the Retail Sector" by Eng. Carlos Venegas MsC. Carlos Venegas, Electronic Engineer in Automation and Control, Master in Big Data from the International University of La Rioja, is currently a research and development leader at Xponential Technologies, consultant for digitalization of processes at AXXIS, professor at the Cisco Academy of ESPE Innovativa , has actively collaborated in the implementation of network infrastructure, etc. The talk was addressed to Administrators, programmers, people with knowledge in systems and services management, students, who want to know about the different applications in which Big Data has been incorporated, since it is currently found in all facets of our lives . It took place May 1, 2020 at 3:00 p.m.



Figure 3 Advertising of the Cisco Certificates Seminar

### Talk about Cybersecurity

The CIS Technical Chapter of the University of the Armed Forces held a seminar to publicize the foundations of cybersecurity that at a time when our life revolves around virtuality represents something necessary and basic. The conference was held in conjunction with the software club of the university of the armed forces espe and lasted 2 days from May 23 to 25. There was a great reception from the members.



Figure 4 Advertising of the Cybersecurity Talk

### Telecommunications day

The IEEE ESPE Student Branch held a Conference Cycle in commemoration of World Telecommunications and Information Society Day to show the latest innovation and trends in the area of telecommunications technology present in the country. The exhibitions focused on telecommunications advances around the new 5G technology were led by direct representatives of major companies in Ecuador. This year the Comsoc Chapter made a virtual Conference and our university presented a conference in charge of the Ing. Darwin alulema Msc who gave an amazing conference about IOT and the architecture based on services and events. The event took place on May 19th at 5:20 pm.



Figure 5 Advertising of the TELECOM Seminar

## Molecular Pathogen Detection Seminar

This was one of the most important fundraising events, it was held with the EMB chapter for the international biotechnology day on June 16, the workshop was free so that all people can have access to the information provided by the Engineer in Biotechnological processes Andrés Carrasco, recognized researcher at INSPI, NIH and NAMRU-6, and the first scientist to identify Bartonella bacilliformis in Ecuador.

The fundraising was done through the issuance of certificates for those who wanted it, the event had a great economic flow and the amount of money invested was very low since the entire event was carried out virtually. It was on June 16 - 17, 2020 at 18h00.



EL CAPÍTULO TÉCNICO EMB DE LA RAMA ESTUDIANTIL IEEE ESPE:  
TALLER GRATUITO  
**DETECCIÓN MOLECULAR DE PATÓGENOS**

**Instructor**  
Andrés Carrasco  
Montalvo  
Ingeniero en procesos biotecnológicos

Investigador del Instituto Nacional de Investigación en Salud Pública (INSPI).  
Primer investigador en detectar *Bartonella bacilliformis* en el Ecuador

**16-17 JUNIO (GTM-5) 1H30 POR DÍA**

**Martes 16 de Junio**  
Extracción: de material Genético (Uso de kits, protocolos convencionales y extracción automatizada).  
Cuantificación: Uso y programación de NanoDrop

**Miércoles 17 de Junio**  
Amplificación: Programación de termociclador, PCR convencional y qRT-PCR.  
Lectura: Análisis de gels de agarosa y análisis de curvas

Inscripción 

Universidad de las Fuerzas Armadas ESPE IEEE Student Branch  
EMB IEEE Rama Estudiantil IEEE - ESPE

Figure 6 Advertising of the Molecular Pathogen Detection Seminar

## Cycle of conferences IEEE R9

Four student branches in the countries of Colombia, Argentina and Ecuador conducted the cycle of conferences IEEE R9 with themes of today and that represent to their Chapters Technical more representative AESS, CIS, EMB, PES and WIE. From 29 June to 3 of July, they were held conferences concluding with one contest in Case of Ethics.



**CICLO de CONFERENCIAS**

**CONFERENCIAS**  
Cuatro capítulos estudiantiles de los países Colombia, Ecuador y Argentina nos unimos para realizar un ciclo de conferencias con temáticas referidas a las especialidades de cada uno de ellos: AESS, CIS, EMB, PES, WIE.

**CASO DE ÉTICA**  
Se planteará un caso de ética en el que varios equipos competirán por el primer lugar, aplicando los conocimientos adquiridos a lo largo de la semana.

JUN 29 al 2 JUL  
  
18 hs

JUL 3  
  
16 hs

RAMA ESTUDIANTIL IEEE - ESPE  
Universidad Nacional de San Juan IEEE Student Branch  
IEEE IEEE Rama Estudiantil IEEE - ESPE

Figure 7 Advertising of the CAE Event

Each conference counted with one "Key-Speaker" and other two speakers, having 45 and 30 minutes of exposure each. In addition, 5-minute rounds of questions were held to answer questions from the attendees. The event was held on the Webex platform. It had a schedule of 16h00 (GMT-5) or 18h00 (GMT-3). Is performed committees of Registration, Logistics, Advertising and Broadcasting, for the better development of the event that ended being all one success.

### Virtual Technical Seminar RAS

The RAS IEEE ESPE technical chapter, as part of the RAS week, held a cycle of technical conferences related to professionalization in the industry, innovation and postgraduate studies with virtual talks by keynote speakers from NaNox, a sponsor company of the event, from Schneider Electric was the sponsor of the event and Kyung Hee University a strategic ally. The talks were aimed at future professionals in the field of engineering giving them a great opportunity to interact with experts, it was held on July 18 from 4:00 p.m. to 6:00 p.m. through the Webex platform.



Figure 8 Advertising of the RAS Virtual Talks

### Ecuadorian Engineering Fair

With the support of six student branches of the Politecnica de Quito, Católica de Guayaquil, ESPOL, UTPL, USFQ and the ESPE armed forces university, a series of conferences was developed in which students graduated from technical careers to they had the opportunity to present their thesis projects through the webex virtual platform in order to share new knowledge of scientific research. It was held from April 1 to 15 and was very well received by the university community.



Figure 9 Advertising of the Ecuadorian Engineering Fair

## Medical Image Processing Seminar

The Seminar was focused on learning about the application of artificial intelligence in biology and medicine under the instruction of Ing. Christian Gutiérrez with the collaboration of the EMB chapter, this free workshop was held in which, as in other workshops, it was the certificates that they had a cost. There was no investment for the workshop and funds were raised for competition prizes carried out by the branch. It was made on September 28 - 29, 2020 at 5:00 p.m.



Figure 20 Advertising of the Medical Image Processing Seminar

## SCI HUB Webinar

The Engineering in Medicine and Biology Society EMB Technical Chapter and the Women in Engineering WIE Affinity Group of the IEEE ESPE Student Branch, gave us the opportunity to be part of this great Webinar with the popularly known as "Robin Hood" of science, Alexandra Elbakyan Direct from Russia we spoke with Alexandra Elbakyan about her greatest contribution to remove the barriers of science, Sci-Hub. The event was held free of charge online and a small infographic contest was held to commemorate it. held on November 21 at 12:00 and had more than 100 participants.



Figure 31 Advertising of the SCI HUB Webinar