





### DEAR PARTNERS,

#### Greetings from São Bernardo do Campo!

We're excited to share some updates from our university, including the performance of FEI undergraduate courses ranked by RUF Folha 2025 (Folha University Ranking), one of the country's most respected references for assessing universities. In this edition, you can also read about the experiences of our faculty members and students abroad.

As the holiday season approaches, we extend our warmest wishes. May the spirit of Christmas fill your hearts with joy and peace.

Merry Christmas and a Happy New Year!

### **RUF Folha 2025**

The RUF Folha 2025 (Folha University Ranking), published by the newspaper Folha de São Paulo on November 9th, evaluates more than 2,200 higher education institutions. Since its creation in 2012, the ranking has become one of the country's most respected references for assessing universities, considering five aspects — research, teaching, market, internationalization, and innovation — based on national and international data and two surveys.

The Fundação Educacional Inaciana Pe. Sabóia de Medeiros (FEI) has once again been recognized as one of Brazil's top higher education institutions. In the 2025 edition, FEI's tradition of academic excellence was reaffirmed, with leading positions for several of its engineering courses, as well as for computer science and business administration.

Find below the performance of FEI courses ranked by RUF Folha:

| Course                             | <b>Brazil</b><br>Private Institutions | State of<br>São Paulo<br>Private Institutions |
|------------------------------------|---------------------------------------|---|
| Electrical Engineering             | 1st                                   | 1st   |
| Mechanical Engineering             | 3rd                                   | 2nd   |
| Production Engineering             | lst                                   | lst   |
| Automation and Control Engineering | 1st                                   | 1st   |
| Chemical Engineering               | lst                                   | 1st   |
| Civil Engineering                  | Among top 20                          | Among top 5                                   |
| Computer Science                   | Among top 15                          | Among top 5                                   |
| Administration                     | Among top 15                          | Among top 10                                  |

For more information about RUF Folha 2025: https://ruf.folha.uol.com.br/2025/ranking-de-cursos/administracao-de-empresas/

# FEI Production Engineering course receives top marks in national assessment Guia da Faculdade Estadão 2025

In the ranking released on October 31, 2025, the Guia da Faculdade Estadão once again confirmed FEI's excellence in education in its undergraduate areas. In addition to the historic achievement of a 5 stars rating for the Production Engineering course (the highest score in the entire ranking, classifying the course as excellent), FEI's other courses were also evaluated, earning 4 stars (a score that classifies the courses as very good), demonstrating the quality of the institution's education.

Organized by the Estadão newspaper, the Guia da Faculdade Estadão evaluated approximately 22,198 undergraduate programs throughout Brazil, including public and private institutions. The evaluations are carried out for all institutions registered with the Ministry of Education. The evaluation considers criteria such as: pedagogical project – characteristics of the course's teaching proposal; faculty – profile of the teachers associated with the course; and infrastructure – conditions of materials and equipment available.

Check below the results of the evaluations of each FEI undergraduate program in the Guia da Faculdade Estadão 2025:

- Production Engineering: 5 stars (São Bernardo do Campo Campus)
- Administration: 4 stars (São Bernardo do Campo Campus)
- Administration: 4 stars (São Paulo Campus)
- Robotics Engineering: 4 stars
- Electrical Engineering: 4 stars
- Automation and Control Engineering: 4 stars
- Mechanical Engineering: 4 stars
- Chemical Engineering: 4 stars
- Civil Engineering: 4 stars
- Computer Science: 4 stars
- Computer Science (São Paulo Campus): not evaluated
- Data Science and Artificial Intelligence (AI) (São Paulo Campus and São Bernardo do Campo Campus): not evaluated
- Production Engineering (São Paulo Campus): not evaluated









### **NEWSLETTER** DFCFMBFR 2025

### **Deadline for Spring Semester 2026**

FEI is pleased to invite undergraduate students from our partner institutions to apply for our Exchange Program. Spend 6 months or a full year immersing yourself in Brazilian culture and academics at our beautiful São Bernardo do Campo campus. Our 243,000-square-meter campus is home to state-of-the-art laboratories, specialized centers, the FEI Agency for Innovation (AgFEI), modern classrooms, a well-stocked library, dining options, a sports complex, a chapel, and ample parking.









The deadline to apply for the Spring Semester (August to December) is May 15th.

For detailed information on the application process and requirements, please visit the application procedure on the website:

https://fei.edu.br/sites/internationalaffairs

We look forward to welcoming you to FEI!

### FEI students and professors attend microelectronics congress

From August 25 to September 1, FEI participated in "Chip in the Jungle," the most important international congress in the field of microelectronics and microtechnologies, held annually in Brazil. This year's edition, hosted in Manaus (Amazonas), featured five distinct events which together form the largest forum in Latin America.

In total, 21 representatives from FEI participated in the event, including 5 professors, 1 postdoctoral researcher, 8 doctoral students, 4 master's students, and 3 undergraduate students. The representatives also presented a total of 18 articles at SBMicro, as first authors, with 14 oral presentations and 4 poster presentations. Three other SBMicro papers were also co-authored by FEI representatives.

Traditionally, SBMicro is an annual event focused on micro- and nanoelectronics, bringing together researchers in the fields of device physics, electrical characterization, modeling, and simulation of state-of-the-art components. It also covers the areas of electrical measurements and microfabrication processes.

Also during the event, in addition to the articles presented, FEI Electrical Engineering PhD student Jefferson Almeida Matos received the José Camargo da Costa Award for the best master's thesis presented at the 13th Thesis and Dissertation Competition of the Brazilian Microelectronics Society.



You can find the list of articles presented by FEI representatives, in alphabetical order, on the website: https://portal.fei.edu.br/noticia/1889/alunos-e-professores-da-fei-marcam-presenca-no-maior-congresso-de-microeletronica-do-pais-sediado-em-manaus

### RoboFEI participated in the first Humanoid Robot Olympics in China

From August 14 to 17, 2025, the RoboFEI team participated in the RCAP (RoboCup Asia-Pacific) Beijing Masters – Humanoid League 2025. The competition brought together more than 280 teams from 18 countries, including Japan, Germany, and Malaysia, in a global celebration of innovation and technology. The event represents a significant milestone for humanoid robotics, featuring sports-focused challenges such as robot soccer, athletics, boxing, martial arts, jumping, and table tennis.

The FEI delegation included Prof. Dr. Plínio Thomaz Aquino Júnior, from the Department of Computer Science and coordinator of the RoboFEI @Home team, together with Prof. Dr. Flávio Tonidandel and students from the institution's three competitive teams. The group included two student representatives from each area: Humanoid League, Small Size League (SSL), and @Home. This structure was designed to encourage knowledge exchange across teams and strengthen research and innovation.



ROBOFEI finished 5th in the Humanoid League standings, among more than 30 teams. This is an excellent result for Brazil, for FEI, and for the RoboFEI students. According to Prof. Dr. Plínio Thomaz Aquino Júnior, beyond establishing relationships with leading robotics research groups in Portugal, Singapore, Thailand, Germany, the United Arab Emirates, and Japan, the team also benefited from hands-on learning with Booster Robotics® advanced humanoid platforms. "We had direct support from Booster Robotics® engineers and other Chinese teams. This learning will be extremely important for the evolution of our robotics projects at FEI, as well as for developing applications for the two Booster Robotics TI robots that FEI will receive on loan for research and robot-soccer demonstrations at events. Our focus now is to disseminate this knowledge among team members, FEI students, and other Brazilian teams," he highlighted.







### FEI participated in AUSJAL events



Picture credits: CCEC/PUC-Rio Team

The Rector of Centro Universitário FEI, Prof. Dr. Vagner Bernal Barbeta, was present at important events organized by AUSJAL (Association of Jesuit Universities in Latin America), held at PUC-Rio de Janeiro. His participation reinforces FEI's commitment to cooperation and educational development in Latin America, aligned with Jesuit principles.

Preceding the Assembly, on November 12, Prof. Vagner Bernal Barbeta was part of the panel entitled "Jesuit Universities and the Future of Accompaniment: Challenges and Opportunities" at the AUSJAL Education Congress, which took place on November 11 and 12. This congress served as a crucial forum for discussing trends, challenges, and innovations in Jesuit higher education within the Latin American context.

On November 13 and 14, the Rector participated in the AUSJAL Assembly. The meeting focused on two central points of discussion and deliberation: the new Strategic Planning for the 2026–2031 period, and the Election of the New Steering Committee.

Accompanying the Rector was Ms. Ms. Daiani da Silveira, from FEI's International Relations sector. Her participation was vital, as she serves as the liaison for FEI within AUSJAL, ensuring effective articulation and communication between the institution and the network of Jesuit universities.

FEI's presence at these AUSJAL gatherings underscores the importance of international collaboration and a shared vision to address the challenges of higher education, promoting academic excellence and social responsibility.

### FEI faculty present research at the AUSJAL Symposium

From November 10 to 12, 2025, FEI attended the III AUSJAL 2025 Educational Innovation Symposium, held at the Pontifical Catholic University of Rio de Janeiro (PUC-Rio). The event was of great importance as it was part of the activities commemorating the 40th anniversary of the Association of Universities entrusted to the Society of Jesus in Latin America. AUSJAL, as it is known, brings together 30 Jesuit universities from 14 countries in Latin America and the Caribbean, with the aim of promoting collaboration and solidarity among its members, strengthening the identity and social commitment of Jesuit member universities.

The theme of the event was "Humanistic Education in the Age of Information and Artificial Intelligence," and FEI was represented by its rector, Prof. Dr. Vagner Bernal Barbeta, as well as by faculty members Prof. Dr. Eliane Chinaglia, Prof. Dr. Mariana Pojar, and Prof. Dr. Fábio do Prado, who presented a paper entitled "Pedagogical Impacts of Teaching Focused on the Protagonism of Engineering Students."

"It was a great opportunity to consolidate the relationship between FEI and the other Jesuit universities in Latin America and the Caribbean present at the event and to demonstrate our institution's leading role in training professionals who are attentive to the new demands of the job market, adopting innovative methodologies and digital tools from the very beginning of our students' educational journey," said Prof. Dr. Fábio do Prado, professor of Physics I, a subject offered to students in the first cycle of the undergraduate engineering program.





Picture credits: CCEC/PUC-Rio Team







# **FEI around the world!** Scotland:



Professor Dr. Marcilei Guazzelli participated in the 35th International Conference on Diamond and Carbon Materials (ICDCM2025), held in Glasgow between August 31st and September 4th, 2025. Her participation in the event included attending lectures, presenting research results, evaluating relevant technical aspects, and establishing strategic contacts for future international collaborations. Also on August 31st, Dr. Marcilei Guazzelli joined the the Diamond and Related Materials Publishing Seminar, where procedures for submitting articles for the special edition of the Diamond and Related Materials journal, scheduled for 2026, were discussed.

Professor Dr. Marcilei Guazzelli presented the lecture "Resilience of the Physicochemical Properties of Graphene-Based Materials for Applications in Harsh Radiation Environments," which sparked technical discussions on degradation mechanisms, restructuring, and the application of carbonaceous materials in extreme conditions. She established contacts with several researchers working on defects in diamond and graphene, radiation modeling, and the synthesis of functional materials. In addition to the oral presentation, she also presented the poster "Setup for Studying the Thermal Conductivity of HOPG Foils under Heavy-Ion Beams", which detailed the experimental system developed by his group.

The studies presented by professor Dr. Marcilei Guazzelli are the result of a collaboration within the NUMEM project, involving the study of carbon materials—such as MLG and HOPG—irradiated with

heavy ions. These materials play a strategic role in high-intensity nuclear physics experiments, such as NUMEN, which investigates matrix elements associated with neutrino-less double beta decay. The research integrates knowledge of applied nuclear physics, chemistry, and materials science, originating from a Universal Consolidated project (proc. 408800/2021-6), completed in 2025, whose focus is to understand, in a phenomenological way, the correlation between the physicochemical properties of carbonaceous materials and the effects of ionizing radiation.

Throughout the event, Dr. Marcilei Guazzelli observed a strong presence of research groups from Japan and China, reflecting their leadership in the development of 2D materials and advanced devices, as well as the participation of industrial laboratories, such as those from Honda. "It was also noteworthy to have the opportunity to interact with companies that produce graphene and diamond films for sensors and devices, which opens up prospects for future partnerships. Participation in ICDCM 2025 allowed for scientific updating, expansion of collaborative networks, and dissemination of results from a consolidated research group," she explains.

Dr. Marcilei Guazzelli expresses her gratitude to the São Paulo Research Foundation (FAPESP) for the essential support that enabled her participation and contributed to the advancement of research on materials for extreme environments.

### **Collaborators:**

M.A. Guazzelli, L.H. Avanzi, V.A.P. Aguiar, A.C. Villas-Boas, S. Alberton, S.H. Masunaga, M.T. Escote, E.F. Chinaglia, K. Araki, M. Nakamura, M.M. Toyama, F.F. Ferreira, M.T. Escote, R.B.B. Santos, N.H. Medina, J.R.B. Oliveira, M. Giovannini, F. Cappuzzello, M. Cavallaro

**Institutions:** FEI, UFABC, IFUSP, IQUSP, INFN-Catania, University of Genoa.

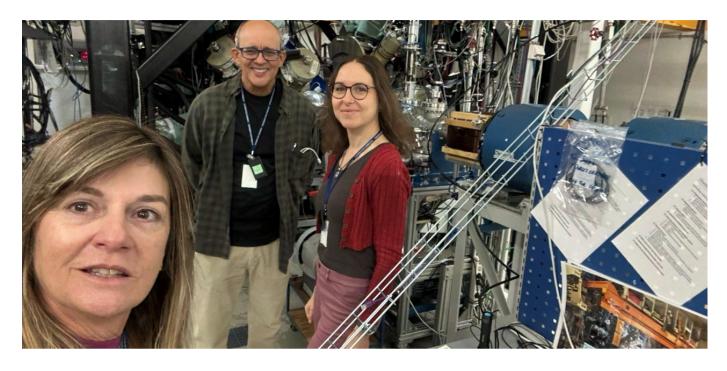






# FEI around the world!

### Finland:



Professor Dr. Marcilei Guazzelli participated in Experiment JM56, conducted at the JYFL laboratory (Accelerator Laboratory of the University of Jyväskylä), Finland, from February 14th to 28th, 2025, with financial support from National Institute of Science and Technology: Nuclear Physics and Applications (INCT-FNA) and the European Agency EUROLAB. Her participation integrated the investigation of the high spin states of the <sup>37</sup>Ca nucleus, a study of great relevance for understanding the structural evolution of mirror nuclei with A = 37 and isospin T = 3/2.

The main objective of the experiment was to examine the excited states of <sup>37</sup>Ca, produced by the <sup>28</sup>Si + <sup>12</sup>C reaction, allowing rigorous testing of the predictions of the layer model and obtaining direct information about the composition of the wave functions of these states. Dr. Marcilei Guazzelli accompanied all experimental stages, from the preparation of beam conditions to the monitoring of acquisitions, actively contributing to the preliminary analysis of the data.

The methodology employed used the JUROGAM3 spectrometer, coupled with the MARA separator, enabling the detection of high-resolution  $\gamma$  rays. The  $^{37}$ Ca nucleus was identified through coincidences with  $\beta$ -delayed protons, which is essential for isolating events of interest in nuclei with Tz = -3/2. During her participation, Dr. Marcilei Guazzelli worked on the initial stage of  $\gamma$  energy calibration and the process of reducing the acquired data.

The participation of the FEI professor in the JM56 experiment represented not only a technical and scientific advance in  $\gamma$  spectroscopy and methods for selecting exotic nuclei, but also a strategic step toward institutional internationalization. Her direct involvement in a highly complex experiment conducted at the JYFL laboratory strengthened the ties between the FEI and world-renowned research groups, such as the University of Padova and INFN (Padova and Legnaro, Italy). "This interaction consolidated an environment propitious to the circulation of knowledge, the exchange of methodologies, and the formation of lasting collaborative networks," she reports.

The expected results of the experiment—including the extension of the <sup>37</sup>Ca level scheme and the validation of contemporary nuclear models in extreme isospin regimes—will have a direct impact on global scientific production, reinforcing FEI's role in international discussions on nuclear structure. Dr. Marcilei Guazzelli highlights that the financial support from INCT-FNA and EUROLAB was essential to enable this participation, which resulted in the formation of international partnerships and the advancement of strategic research in experimental nuclear physics.





### **Student Testimonials**



### **Ana Beatrice Seabra Capovilla**

Mechanical Engineering student - FEI

"Participating on the Dual Degree Program in France has been an incredible experience for us. Studying at Icam Lille has provided us with great academic and personal learning, as well as the opportunity to experience everyday engineering in a totally new context. We have been learning a lot from professors and colleagues from different countries, sharing ideas, cultures, and ways of thinking. This international experience has broadened our worldview, reinforcing values such as autonomy, adaptability, and teamwork. We are very happy for representing FEI here in France and to have an experience that will certainly mark our professional and personal lives".

### Lucas Gomes da Silva

Mechanical Engineering student – FEI

"A Transformative Experience! My name is Lucas Gomes da Silva, and I am a Mechanical Engineering student at FEI and a scholarship holder in the dual degree program in General Engineering at ICAM in Lille, France, through the CAPES Brafitec program.

Coming from a public school and being a full-scholarship student at FEI, earning this opportunity always felt distant. When I learned about the partnership with ICAM, I committed myself to studying French in order to pursue my dream of studying in Europe, and seeing that dream come true has been extraordinary.

At ICAM, I discovered a very unique educational model: more courses per semester, strong multidisciplinarity, and project-based learning that encourages autonomy and responsibility. The generalist curriculum allowed me to explore areas such as Chemical Engineering and Production Engineering, greatly expanding both my technical foundation and my worldview.

Adapting to the French language was challenging at first, but professors and classmates always supported me. Lille, in turn, is a young, welcoming city full of international students, which makes the cultural experience even richer.

I strongly recommend ICAM to anyone seeking personal and academic growth, exposure to new cultures, and a truly multidisciplinary education. This experience broadens horizons and transforms the way we understand engineering and the world. I am deeply grateful to FEI, ICAM, and the Brafitec program for this unique opportunity."

#### **Nicole Carreta Nouer**

Production Engineering student - FEI

"I always dreamed of studying abroad, and when I was choosing which university to attend, the long-standing partnership between FEI and Icam in France, offering the opportunity for a Double Degree Program, was the decisive factor. I always loved the French language and France, which I saw on TV.

By the end of my third year of engineering at FEI, when I started preparing for this exchange program, I realized that living in France for two years would not be easy for a Brazilian who has to divide everything by R\$6.20. I was awarded the Brafitec scholarship to cover this two-year program, as FEI was one of the higher education institutions selected in the CAPES/Brafitec Program.

After a year and two months here in France, I can see how much I have developed in such a short time. The Nicole of today is not the same person who left Brazil, nor is she the same as she was during her first few months here. Today, I speak French fluently, thanks to the total immersion provided by Icam's Program 100% in French. When I arrived, I couldn't understand half of the classes or what people were saying. Now I dare say that I understand about 90% of a conversation and communicate more naturally. My French friends always congratulate me on my progress and encourage me to continue learning, and they don't hesitate to correct me when I make mistakes, which only accelerates my progress.

I also had the opportunity to do an internship as an Assistant Engineer at the world's largest cosmetics group, L'Oréal, where I discovered my passion for the factory floor and was able to see, in practice, everything I learned during my four years of Production Engineering. Currently, I am working on my undergradute final paper on process optimization and continuous improvement at an insurance brokerage firm, Verspieren, and I am looking for my mandatory final internship, the 'stage de fin d'études'.

I believe that all young people should have the opportunity to step outside their comfort zone and face the challenges of living in another country, with a culture and language completely different from their own. Embracing the opportunity of a full scholarship through the CAPES/Brafitec Program is truly unique, especially considering the current economic situation in the country.

My personal development is immeasurable, and I can say without fear that today I am capable of facing any kind of problem. I have gained independence, adaptability, and autonomy that I might never have achieved without this experience".





## **Student Testimonials**



### **Leonardo Antunes Ferreira**

Doctoral student in Electrical Engineering – FEI

"My name is Leonardo Antunes Ferreira, a doctoral student in Electrical Engineering with an emphasis on Signal Processing, under the supervision of Prof. Dr. Carlos Eduardo Thomaz. From September to December, I had the opportunity to advance my research and strengthen international collaborations with Robert Gordon University (RGU) in Aberdeen, Scotland, through the Doutorado Sanduíche no Exterior program. During my stay, I was able to engage with leading researchers in the field of Explainable Artificial Intelligence, applying state-of-the-art techniques to my research on the automatic detection of pain in newborns.

This international experience was deeply enriching, both personally and academically. I had the chance to immerse myself in a new culture and contribute to expanding the academic ties between FEI and RGU. Without a doubt, international programs such as this one not only support students' academic and professional growth but also broaden the frontiers of knowledge at FEI and in Brazil".



### Sophia Alves Luzeiro and Manuella Valeriano

Chemical Engineering Students - FEI

"We, Sophia Alves Luzeiro and Manuella Valeriano, undergraduate students from the Chemical Engineering course at FEI, had one of the most remarkable experiences of our lives during our research exchange in Naples, at Università degli Studi Napoli Federico II. Despite that we went in different months, we felt that our stories connected in a very beautiful way. Arriving in Italy with a suitcase full of expectations and the heart full of doubts was scary at first. Everything was new: the language, the streets, the food, the way people acted, the laboratory's rythm. But slowly, what seemed strange became a routine, and the routine became affection. Being there made us realize how much more we were capable of than we had imagined.

In the laboratory, we immersed ourselves in MATLAB, learned new methodologies, and talked with researchers. And in my case, Sophia, I also had the opportunity to participate in a course on Water and Effluent Treatment, which greatly expanded my knowledge. The personal growth was as great as the academic growth. Living alone in an unfamiliar country affects us: it's scary, it makes us homesick, it gives us butterflies in our stomachs... but it also gives us an enormous sense of freedom and strength. We learned to handle ourselves, to ask for help, to communicate even when it seemed impossible to find the right words. And that changed something inside us.

Naples also teaches us a lot. The intensity of the city, the beautiful chaos of the streets, the sea, the pizza that will never be the same again, the people who speak with their hands and their hearts... all of this was as much a part of our formation as the laboratory. It was there, in the mix of academic routine and life on the streets of Naples, that we truly grew up.

We returned to Brazil differently: more confident, more courageous, and with a much broader worldview. We are immensely proud to have been the first undergraduate Chemical Engineering students at FEI to experience this opportunity through the BEPE (Overseas Research Internship Grant) from the FAPESP (São Paulo Research Foundation). We hope that our experience will inspire others students to believe in their own potential and pursue new opportunities, even when they are scary.

This trip was more than an exchange program it was a turning point in our lives".





## **Student Testimonials**



**Thalia Alves da Silva**Master's student in Electrical Engineering – FEI

"Participating in RADECS 2025 was one of the most remarkable experiences of my academic journey so far. This was the first time I took part in an event of this magnitude, recognized worldwide for bringing together experts devoted to studying the effects of radiation on electronic components and systems.

During the conference, I had the opportunity to present my research on the behavior of LGAD (Low-Gain Avalanche Detectors) sensors under low-energy X-ray exposure, a study that is part of my master's project at FEI, developed under the supervision of Prof. Marcilei Aparecida Guazzelli, with the collaboration of Prof. Dr. Rogelio Palomo from the Universidad de Sevilla.

I also attended a short course offered during the event, which significantly deepened my understanding of techniques for mitigating and characterizing radiation effects in semiconductor devices. This practical and interactive learning experience added substantial value to the technical discussions presented throughout the sessions.

I was honored to receive a student grant from RADECS, which waived my registration fee and enabled my participation in the short course — a recognition that made me extremely happy and motivated. The financial support for travel and accommodation was funded by the FAPESP Special Project 2020/04867-2 – High-Energy Physics and Instrumentation with the LHC-CERN, through the collaboration established with our research group at FEI.

RADECS also gave me the opportunity to meet and exchange experiences with researchers from different parts of the world, broadening my understanding of current trends and challenges related to radiation effects in semiconductor devices. These discussions were highly inspiring and will undoubtedly contribute to the development of my work.

Overall, the conference was not only technically enriching but also a moment of personal and professional growth. Heft Antwerp with a heart full of gratitude and an even stronger desire to continue exploring the challenges and discoveries that this field has to offer".



### **Dr. Alexis Cristiano Vilas Bôas**

Alumni of the Doctoral Program in Electrical Engineering - FEI

"Participating in RADECS 2025 (RADiation and its Effects on Components and Systems Conference) was one of the most remarkable experiences of my academic and professional journey. The conference, recognized as the leading international event dedicated to the study of ionizing radiation effects on electronic devices and systems, brought together researchers, engineers, and scientists from around the world in an environment of intense scientific and technological exchange. During the event, I had the honor of receiving the Young Leader in Nuclear Engineering and Physics recognition award, granted by the M2L IEEE NPSS—an acknowledgment that symbolizes the effort and dedication invested in my line of research. Beyond its symbolic value, this award also provided financial support for my participation in the conference, allowing me to fully experience this international opportunity.

Another highlight of the event was the opportunity to work alongside Dr. Martin Grossman and Dr. Stefan Ritt at the IEEE booth. This experience broadened my understanding of the role of scientific societies in promoting research and building stronger connections between academia and industry. Interacting with renowned researchers and professionals from different countries and backgrounds significantly expanded my perspective on the global impact of science and the importance of interdisciplinary collaboration.

During RADECS 2025, I also presented the main results of my doctoral thesis, developed at Centro Universitário FEI under the supervision of Prof. Marcilei A. Guazzelli, in partnership with the University of Seville. Titled 'Unveiling Synergistic Radiation Effects in AlGaN/GaN HEMTs: A Comparative Study,' the work investigates radiation effects on AlGaN/GaN HEMTs under various irradiation conditions, including 14 MeV fast neutrons, 10 keV X-rays, and 1.25 MeV gamma rays from a <sup>60</sup>Co source. The research analyzes phenomena such as Displacement Damage (DD), Total Ionizing Dose (TID), Single-Event Effects (SEE), and potential synergistic interactions. Among the most significant findings, the threshold voltage (VTH) was observed to decrease across all irradiation conditions, evidencing the predominance of TID effects, while gmmax and RDSON exhibited distinct behaviors depending on the radiation source.

In summary, my participation in RADECS 2025 marked a significant milestone in my scientific career. The recognition as a young leader, the opportunity to collaborate with distinguished researchers, and the chance to present my work at one of the most prestigious conferences in the field strengthened both my technical background and my understanding of the researcher's role in building global and collaborative knowledge. This experience reinforced my commitment to advancing radiation-tolerant electronic device research and renewed my motivation to contribute to scientific and technological development on an international scale."















