

EEDA



**EXPLORE ENERGY
DIGITAL ACADEMY**



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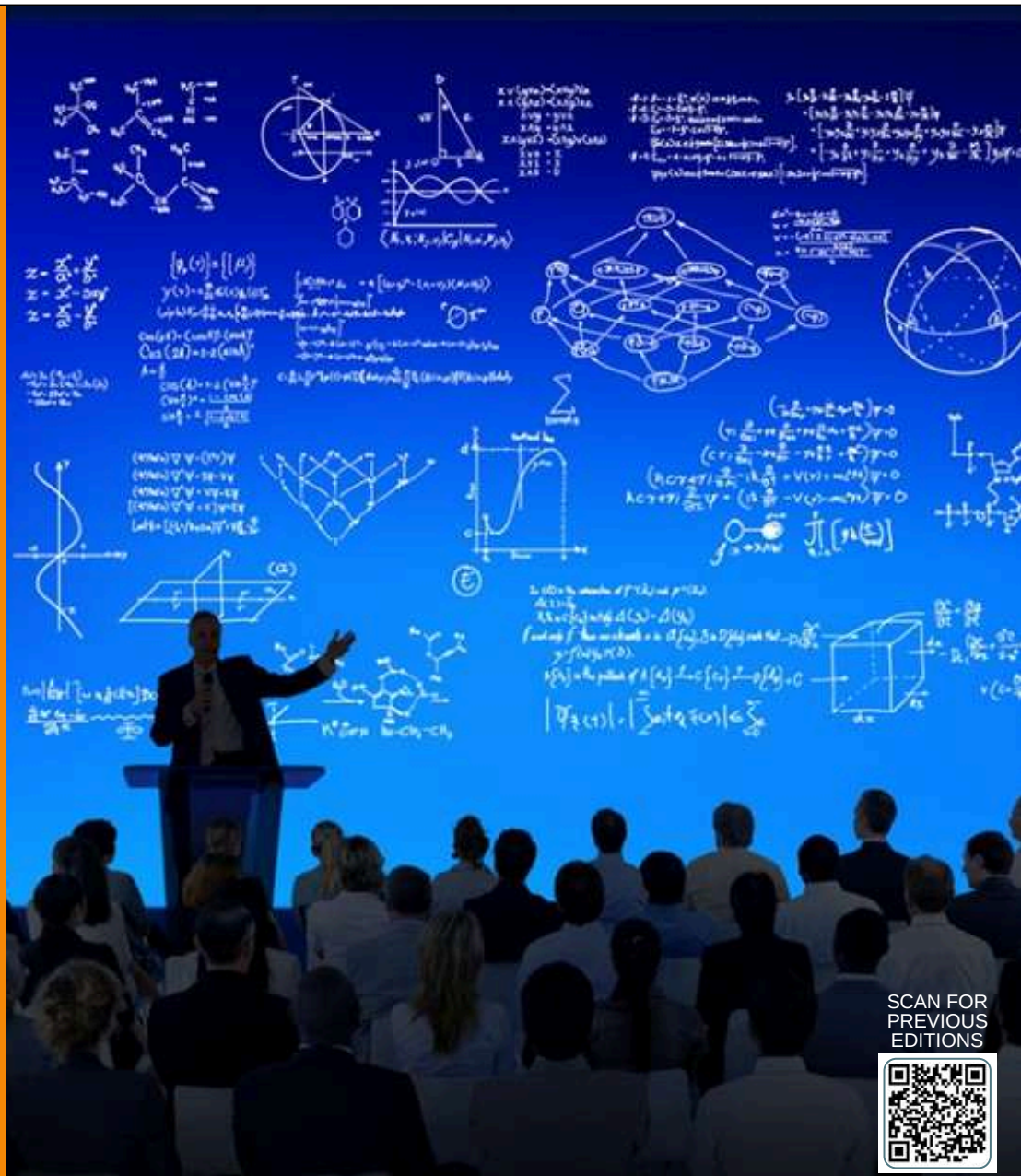
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SCAN FOR
PREVIOUS
EDITIONS



IT IS ABOUT PRESERVING WHAT IS WORTH LEARNING

There comes a moment when a publication must ask itself a simple question: What are we really trying to preserve?

For more than two years, the EEDA Newsletter has documented activities, milestones, meetings, projects, and opportunities across an international community committed to transforming education in energy and sustainability.

Each edition has captured moments in time. But behind every activity, there has always been something more valuable: the learning that remains after the activity has ended.

This edition represents a step in that direction.

We are not simply reporting what happened. We are creating space for the ideas, questions, reflections, and experiences that emerge from educational practice.

A classroom challenge can become a lesson about sustainability.

A professional journey can remind us that education does not end with a degree. A technological advance can make us reconsider how and where engineering is taught.

Perhaps this is where the true value of an educational community lies: not only in doing things together, but in taking the time to understand what those experiences have taught us.

Education is entering a period of profound transformation.

Artificial intelligence challenges us to reconsider what students need to learn. Remote laboratories challenge the traditional boundaries of the classroom.

New approaches to sustainability demand that disciplines once treated separately begin to speak to one another.

**Share Your
EEDA News**



SUBMIT YOUR NEWS

Would you like to feature an activity, achievement, event, or initiative from your institution in the next EEDA Newsletter?

Submit your news article through EEDA platform: EEDA News Submission Portal

Log in using your EEDA project username and password.

Monthly submission deadline:
Last day of each month.

This edition is an invitation to look beyond the activity itself. To ask not only what did we do?, but what did we learn? Not only what technology can we use?, but how should it change education?

And perhaps most importantly, not only what should students know?, but who should they become?

The next chapter of the EEDA Newsletter is not simply about publishing more.

It is about preserving what is worth learning.

Using the EEDA QIP to Strengthen a learning module

Dr. Shreyas Hegde



Dr. Shreyas Hegde

As an engineer working in the turbomachinery industry, I recently developed an EEDA learning module titled **Aeromechanical Instabilities: Basic Introduction**. The module introduces learners to aeromechanical instability mechanisms, mistuning, aerodynamic-structural coupling, and analytical modelling. I had the opportunity to evaluate the module using the EEDA Quality Improvement Process (QIP) V2.0, and the experience gave me a different perspective on how technical knowledge should be transformed into an effective learning experience.

The QIP evaluation examined the module from several perspectives, including academic metadata, learning outcomes, assessments, multimedia, learning content, and overall structure. The initial evaluation resulted in a good overall score while at the same time, the assessment component helped identify areas where the module could be strengthened.

One of the most useful aspects of the QIP was that it went beyond providing a score. It identified specific, actionable improvements. For example, my original Intended Learning Outcomes included expressions such as “understand” and “introspect.” The QIP highlighted that these are difficult to assess objectively and recommended replacing them with measurable actions such as analyze, evaluate, explain, and justify. This encouraged me to rethink the learning outcomes from the learner's perspective: What should someone actually be able to demonstrate after completing the module?

The QIP also exposed gaps between what the module promised and what learners were actually asked to do. **Another useful outcome was a more critical look at details that can easily be overlooked by a technical subject-matter expert:** prerequisites, learning hours, references, instructions for external resources, assessment structure, and even the wording of the abstract.

For me, the most valuable part of the QIP was the structured feedback behind it. The QIP provided a systematic way of looking at the module through the eyes of a learner and helped identify improvements that I would probably not have recognized through a technical review alone.

About Shreyas Hegde, PhD.

Dr. Shreyas Hegde works in the Compressor System Aerodynamics group at Pratt & Whitney, where his work spans airfoil design, aerodynamics, and structural analysis for fan and compressor modules at the system level. He collaborates with cross-functional, integrated product teams to develop turbomachinery designs, supporting system-level aerodynamic and aeromechanic analysis through both computational modeling and state-of-the-art testing.

Beyond his industry role, Dr. Hegde is an active contributor to the aeromechanics education community. He recently developed the EEDA learning module *Aeromechanical Instabilities: Basic Introduction*, and has volunteered with the American Institute of Aeronautics and Astronautics (AIAA) and the American Society of Mechanical Engineers (ASME) since early in his career, having first been supported by the GUIde consortium during his own graduate research.

Guided by a long-term commitment to advancing aerospace education, Dr. Hegde remains engaged in discussions on aeromechanics, instructional design, and the challenges of translating deep technical expertise into effective learning experiences — the very theme at the heart of his article in this issue.

Preserving Engineering Judgment with Soft Skills in the Education of the 21st Century

Ricardo Bianchi - Universidad San Pablo de Guatemala

Artificial Intelligence is rapidly transforming engineering education, giving students unprecedented access to information, problem-solving tools, and generative capabilities. Yet, as AI becomes increasingly capable of producing technically plausible answers, a fundamental question emerges: are we preparing engineers to use AI effectively, or are we allowing AI to replace the reasoning they need to develop?

One of the greatest challenges for engineering education is therefore not teaching students how to use AI, but ensuring that they continue to develop the judgment needed to question it. **Engineers must be able to interpret problems, challenge assumptions, evaluate alternatives, recognize limitations, and make informed decisions, even when an apparently convincing answer is only one click away.**

This changes the role AI can play in the classroom. Rather than becoming a substitute for human reasoning, AI can become a powerful tool for strengthening it. Learning situations can be designed in which students must examine AI-generated solutions, identify weaknesses, compare alternatives, justify their decisions, and ultimately assume responsibility for the outcome.

The question then shifts from simply asking students whether they know how to use AI to asking something more fundamental: **Do they know when to trust it, when to question it, and when to reject its recommendations?**

In an AI-augmented professional environment, technical proficiency will remain essential, but it may no longer be enough. Critical thinking, communication, collaboration, ethical awareness, and the ability to exercise sound judgment could become among the most valuable distinctly human capabilities engineers bring to their profession.

The challenge for 21st-century engineering education is not to compete with artificial intelligence, but to **ensure that the engineers who use it remain capable of thinking, questioning, deciding, and taking responsibility.**

The Question Behind the Question

If AI can generate a technically correct solution in seconds, **what exactly should an engineering student learn to do?**

The answer may not be to compete with AI, but to learn how to judge it.

Educational institutions and teachers should promote a shift in engineering education: students should not only use AI to obtain answers, but also learn to interrogate those answers, identify assumptions, evaluate alternatives, recognize uncertainty, and take responsibility for their decisions.

The engineer of the future may not be the person who knows the most answers, but the one who knows which answers deserve to be trusted.

Teaching Sustainability Through a Real Design Challenge

Reflections from the Sustainable Ephemeral Construction Challenge

Claudia Taracena - Universidad San Pablo de Guatemala

What changes when architecture students are invited not only to design a space, but also to question how long it should exist, what resources it should consume, and what responsibilities it creates for its users and its environment? This question guided my experience as a lecturer during the Sustainable Ephemeral Construction Challenge, developed within Work Package 5 of the EU-BEGP project and implemented in the Architectural Design III course at Universidad San Pablo de Guatemala.

For me, the challenge represented more than a new academic activity. It offered an opportunity to rethink my role as a teacher.

Rather than beginning with a predetermined architectural response, I accompanied students through observation, inquiry, discussion, and decision-making, helping them connect design intentions with sustainability

criteria and understand the environmental and social consequences of their choices.

Implemented from April to June 2025 with 70 students, the challenge combined face-to-face studio work with asynchronous activities through Learnify. Students addressed a real design problem: how can temporary architecture provide a meaningful spatial experience while reducing material consumption, waste, and environmental impact?

As the process advanced, their discussions incorporated material selection, durability, cost, construction feasibility, assembly, and user experience. Sustainability gradually stopped being an additional requirement and became a criterion for design thinking.

Their final records made this development visible through material comparisons, models, prototypes, construction testing, and documented revisions. Trial and error, last-minute adjustments, and collaborative problem-solving revealed learning as a process of continuous refinement rather than simply a path toward a finished object.



The experience also reaffirmed that active learning requires careful mediation.

Autonomy does not mean leaving students without guidance. It means providing timely questions, appropriate tools, feedback, and enough

flexibility for teams to construct and defend their own responses.

The studio became a space for dialogue where students compared alternatives, challenged assumptions, and learned that a stronger proposal is not necessarily the most visually striking, but the one whose decisions are pertinent, viable, and responsible.

Ultimately, the Challenge connected sustainable construction, circular economy principles, digital learning, and collaborative problem-solving within a locally relevant experience. More importantly, it is about that higher education should not simply transmit answers. It should create conditions in which students develop the questions, criteria, and professional judgment needed to act with awareness, creativity, and responsibility.



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UMSS RECEIVES INTERNATIONAL RECOGNITION FOR ENERGY EDUCATION

Evelyn Cardozo R. - Universidad Mayor de San Simón - Bolivia

The Centro Universitario de Investigaciones en Energías (CUIE) at Universidad Mayor de San Simón (UMSS), Bolivia, has received the OLACDE Energy Excellence Award 2026 in the Education category for its project ***“Advanced Postgraduate and Specialization Programmes for the Energy Transition in Bolivia.”***

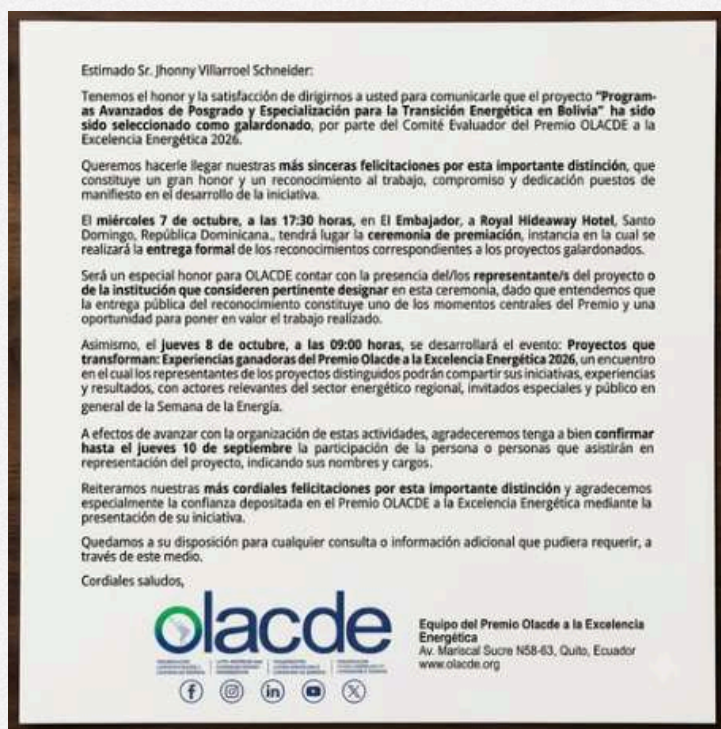
Selected among initiatives from institutions across the region, the recognition highlights CUIE-UMSS's contribution to advanced education, research, and capacity building in the energy sector.

The awarded initiative focuses on strengthening postgraduate and specialization programmes that prepare professionals to address the challenges of the energy transition. Its approach brings together advanced education, research, and practical knowledge to support sustainable development and the evolution of Bolivia's energy sector.

The achievement also reflects the value of international academic collaboration and initiatives that have supported the development of innovative educational programmes, including cooperation within Erasmus+ projects focused on energy transition and sustainable development.

Beyond the recognition itself, the award positions UMSS and CUIE among the institutions contributing to the regional conversation on energy education and sustainable development. It also creates opportunities to share their experience with researchers, international organizations, industry leaders, and potential collaborators.

The formal award ceremony will take place during the XI Energy Week, one of the region's major energy-sector events, on 7 October 2026 in Santo Domingo, Dominican Republic.



Official notification of the OLACDE Energy Excellence Award 2026 received by CUIE-UMSS.

As one of the award recipients, the CUIE team will also represent Bolivia at the international event “Projects that Transform: Winning Experiences of the OLACDE Energy Excellence Award 2026,” where successful initiatives will be presented to an international audience.

This recognition is an important achievement not only for CUIE and UMSS, but also for the broader academic community working to strengthen education as a fundamental driver of the energy transition.

From Sustainable Energy Engineering to Energy for a Circular Economy: A Journey of Lifelong Learning

Ruchira Abeyweera - The Open University Sri Lanka



Dr. H. H. Nalin

Eng. Dr. H. H. Nalin is an international professional engineer whose academic and professional journey reflects a strong commitment to sustainable energy, renewable energy, and the circular economy.

His academic journey began with a First-Class Honours Bachelor of Technology (Engineering) in Electrical Engineering from the Open University of Sri Lanka, where he received the Dr. O. P. Kulshreshtha Gold Medal for the Best Student in 2008.

His advanced energy education began in 2008 with an M.Sc. in Sustainable Energy Engineering at KTH Royal Institute of Technology, Sweden, specializing in Sustainable Power Generation. His academic development continued through postgraduate studies in Electrical Engineering and Industrial Engineering, followed by a Ph.D. in Sustainable Power Generation from Thames International University, France.

More recently, he completed an ***M.Sc. in Energy for Circular Economy (MECE), specializing in Renewable Energy Engineering***, at the University of Moratuwa, Sri Lanka.

The MECE Programme is one of the main outcomes of the EUSL-Energy Project, with EEDA (Explore Energy Digital Academy) as one of its partner organisations. The programme connects sustainable energy, renewable energy, energy efficiency, resource efficiency, sustainable production, and circular economy principles, responding to the evolving needs of the 21st-century energy sector.

Nalin's progression from Sustainable Energy Engineering to Energy for Circular Economy reflects the evolution of knowledge and practices needed to address today's energy and sustainability challenges.

The *Energy for Circular Economy* approach provides a broader perspective by connecting renewable energy, energy

efficiency, resource efficiency, sustainable production and circular economy principles.

His nearly 18-year journey in energy education demonstrates a strong commitment to lifelong learning and continuous professional development.

Throughout this journey, the support and guidance of Prof. Torsten Fransson and Dr. Jeevan Jayasuriya have been highly valuable, contributing significantly to his academic and professional development.

With extensive experience, Eng. Dr. H. H. Nalin continues to contribute to sustainable energy, renewable energy engineering, and the circular economy, demonstrating how lifelong learning can help professionals adapt to a changing energy landscape and contribute to a more sustainable future.

EEDA Newsletter: A Growing Collection of Knowledge



Scan to discover all editions

The EEDA Newsletter is now available as a permanent online collection, bringing together all editions published since its launch in 2024, with 27 publications.

What began as a monthly way of sharing news and activities has gradually evolved into a space for documenting experiences, ideas, educational practices, project outcomes, and reflections emerging from the EEDA community and its partner projects.

The new Newsletter section on the EEDA website (<https://eeda.academy>) provides open access to the complete collection, organized by year and month. It allows readers to explore previous editions, discover experiences they may have missed, and follow the evolution of EEDA's work over time.

With this new archive, each Newsletter edition becomes more than a publication of the month. Together, the editions form a growing record of the ideas, experiences, and learning generated across the EEDA network.

For contributors and readers alike, the archive is also a lasting reference — a place to revisit past projects, trace new connections, and see how shared ideas kept growing over time.

Visit the complete EEDA Newsletter collection and discover what has been shared along the way.

BOOK A LAB, NOT A FLIGHT

The Rise of Remote Laboratories in Engineering Education

Engineering programs are increasingly opening their laboratories to students who never set foot on campus.

Through a shared booking platform, learners reserve time slots on physical lab equipment, such as spectrometers, solar panels, sensors, wind tunnels, accessed entirely online.

The booking system itself, soon open-source, lets learners reserve equipment with almost no teacher intervention.

Not every lab listed is live yet; some are still being built, tested, or connected. That's the point: the platform functions as both a working tool and a public roadmap for where remote experimentation is headed.

Access to real experimentation is becoming a matter of infrastructure.

It's a compact case study in what "digital transformation" means for hands-on science.

These remote labs span universities and colleges worldwide, developed through projects co-funded by the European Union (Erasmus+).

Explore the platform at eubbc-digital.upb.edu/booking/labs

EEDA DIGITAL UPDATES

Search for High-Quality Modules with EEDA QIP 2.0

Finding High-Quality Modules Just Got Easier.

The EEDA QIP 2.0 now includes a new search function designed to make it easier to discover high-quality learning modules across the EEDA repository.

Users can search evaluated modules using criteria such as **module titles, assessors, ID numbers, AI scores, peer-review scores, and Badge Levels**, ranging from Standard to Platinum. A keyword search function is also currently under development.

Simply start typing your search criteria, and the corresponding modules will appear.

To explore the new function, log into EEDA QIP 2.0, select "Explore" from the upper banner, and begin searching using the fields of interest.

This feature currently works with modules assessed through QIP 2.0. Module developers are therefore encouraged to submit their modules for assessment, contributing to a growing repository of evaluated and discoverable learning resources.

[Explore EEDA QIP 2.0](#)

FILTERS

EEDA ID

e.g. SA301-T01L15CM01

Author

name or email

Self-assessment

Any

Passed

AI score

Any

Any

5.0

Peer score

Any

Any

5.0

☐ Has peer reviewers

☐ Missing EEDA ID

Badge

☐ Platinum

☐ Diamond

☐ Gold

☐ Silver

☐ Bronze

☐ Standard

A Glimpse of What's Coming to EEDA

EEDA continues to expand its digital learning ecosystem, with new features currently under development.

Among the upcoming additions is the EEDA Educational Passport, designed to bring together the certificates earned by learners after successfully completing EEDA modules and courses. **The initiative aims to provide each learner with a clearer record of their educational journey across the EEDA ecosystem.**

Another development on the horizon is the introduction of QIP for courses within the EEDA LMS, extending the quality improvement philosophy beyond individual learning modules.

More information about these new features will be shared as they become available.

The EEDA Community

EEDA is a **collaborative educator-to-educator ecosystem** that brings together Erasmus+ projects, universities, and individual educators committed to modernizing education in energy and sustainability.

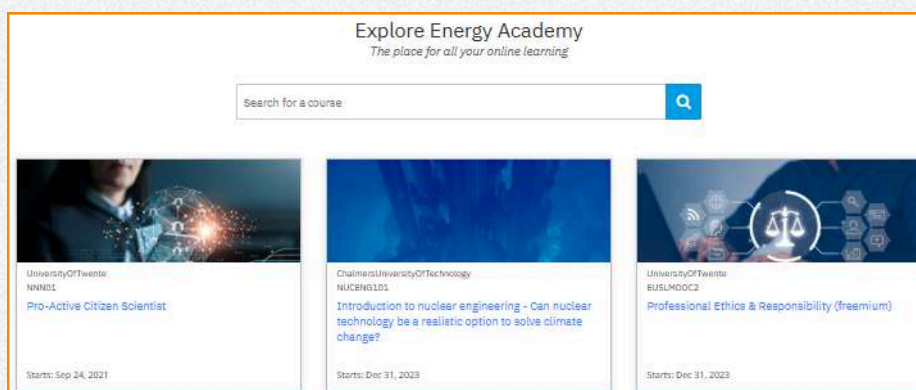
Beyond projects and institutions, EEDA is an open academic community where educators can engage, contribute, and collaborate at an individual level to generate lasting educational impact.

Supported by the European Union through Erasmus+ Capacity Building projects, which provide the foundation for collaboration and long-term impact within the EEDA community.

Interested in joining the EEDA Community?

Whether you are part of an Erasmus+ project, a university, or an individual educator, you can engage, contribute, and benefit from the **EEDA ecosystem** through collaboration, shared learning resources, and peer-to-peer exchange.

To create your free account, please visit:
[EEDA Academy](https://www.eedaacademy.com)



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Be part of a growing global community shaping the future of energy education through collaboration, learning, and shared expertise.

Learn. Share. Connect. Grow — together.

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Azerbaijan, Georgia, Moldova, Romania, Greece, Sweden



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