EEDA

EXPLORE ENERGY DIGITAL ACADEMY

MAY 2026

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NEWSLETTER

IN THIS EDITION

FROM THE EDITOR

From Knowledge to Action

Higher education is often praised for generating knowledge. Yet, in a rapidly changing world shaped by energy transition, digitalization, and sustainability challenges, knowledge alone is no longer enough. The true measure of educational success lies in its capacity to generate action.

The stories featured in this edition of the EEDA Newsletter illustrate this transformation.

In Zimbabwe, students participating in the Energy Transition Sustainable Challenge are moving beyond classroom learning to engage directly with communities, identify real problems, and develop practical solutions. Their experience demonstrates that future energy professionals must learn not only technical concepts but also collaboration, creativity, and entrepreneurship.

Colleagues at Universidad Metropolitana in Venezuela are asking an equally important question: How should universities evolve to prepare graduates for the realities of tomorrow? Their discussions on social inclusion, gender equality, and industry relevance remind us that educational excellence cannot be separated from accessibility, diversity, and responsiveness to societal needs.

Meanwhile, the newly published Production Organization course developed by Universitat Politècnica de Catalunya highlights another dimension of modern engineering education. Technical expertise remains essential, but professionals are increasingly expected to understand operations, decision-making processes, supply chains, and organizational strategy. The engineers who will lead the energy transition are those capable of connecting technical knowledge with business and operational realities.

Together, these initiatives reflect a shared vision across the EEDA community: education must not simply transmit knowledge. It must empower learners, researchers, and institutions to create meaningful impact. As we prepare the next generation of professionals, the challenge before us is not merely to teach what is known, but to equip people to solve what remains unknown.

The future of energy will be built through action. Education is where that action begins.

Share Your EEDA 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 the EEDA platform:

EEDA News Submission Portal

Please log in using your EEDA project username and password.

Monthly submission deadline: Last day of each month.

Escola Politécnica – USP and EEDA: Coordinating Change in Energy Education

by Prof. Dr. Marcelo A. L. Alves – Escola Politécnica, University of São Paulo (Brazil)

The connection between Escola Politécnica of the University of São Paulo (USP) and the EEDA community is rooted in a concrete and demanding experience: the coordination of the EUBBC-Digital project — Europe, Brazil, Bolivia and Cuba Capacity Building Using Globally Available Digital Learning Modules — an Erasmus+ Capacity Building for Higher Education initiative funded by the European Union.

Over 48 months, USP led a consortium of universities across Latin America and Europe, bringing together institutions from Brazil, Bolivia, and Cuba with European partners. The project concluded in early 2025 with the submission of its final report, marking the end of a journey that reshaped how we think about postgraduate energy education in the region.

Coordinating a project of this scale was itself a learning experience. Managing a consortium means navigating institutions with very different administrative cultures, governance policies, and operational rhythms. Aligning expectations, deadlines, and deliverables across borders required patience, flexibility, and a great deal of trust-building. But that friction also produced something real: a growing mutual understanding of what it takes to make collaborative education actually work.

A key part of that learning came through engagement with European universities and companies such as Learnify, whose expertise in digital content creation helped consortium members develop a new approach to teaching. Together, partners learned how to design, produce, and deliver advanced educational content remotely — a model that has since changed how USP thinks about delivering postgraduate education in energy.

One of the most tangible outcomes of EUBBC-Digital was the creation of remote laboratories. At USP, this materialized with the acquisition of an air-conditioning test bench — professional-grade equipment that can be operated online, allowing students to conduct real experiments regardless of their location.

Each semester, 80 students use the equipment on-site, while twice as many access it remotely. This kind of infrastructure goes beyond convenience: it opens practical, hands-on learning to students who would otherwise have no access to it.

For USP, EUBBC-Digital was more than a funded project — it was proof that high-quality engineering education does not need to happen inside a single building, or even a single country.

Co-funded by the European Union

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Product Organization:
A New Course Published In The EEDA LMS

By Bruno Domenech, Universitat Polytecnica de Catalunya (UPC) - Barcelona, Spain

Ever wondered how top tier companies seamlessly synchronize their operations, eliminate wasteful warehouse overheads and launch complex engineering projects exactly on time? They don't rely on luck, they rely on operational strategy!

Whether you are a student or an SME worker, this course is your ultimate professional launchpad. Production Organisation shifts your perspective from a technical developer to a high-performing systems coordinator.

Here is a glimpse of the powerful toolkit you will build:

- Gain sharp business acumen to classify operational costs and evaluate major enterprise investments.
- Learn to direct complex workflows, navigating potential and cumulative constraints to safeguard strict deadlines.
- Master the geometry of facility locations and deploy advanced inventory algorithms to keep supply chains running perfectly.
- Step into the shoes of an operations manager to design Master Production Schedules and run machine sequencing heuristics.

Engineered heavily around active and autonomous exploration, this course empowers you with a continuous improvement mindset to face vague, real-world industry bottlenecks with confidence.

Are you ready to unlock the quantitative tools and strategic edge that modern industry demands? Secure your spot in your designated session, step into the operations control room and transform your engineering potential into operational excellence!

The course covers around 65 Estimated Learning Hours, that is 2.36 SMCTS, and can be reached at EEDA Academy.

Co-funded by the European Union

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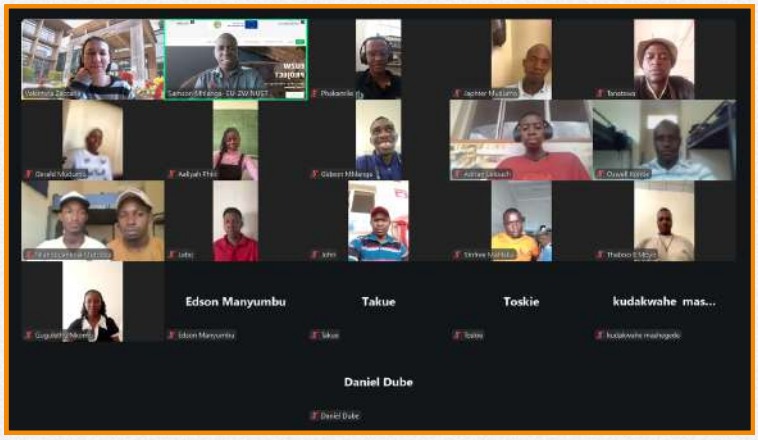
EU-ZW ENERGY TRANSITION SUSTAINABLE CHALLENGE REACHES MIDWAY MILESTONE

by Samson Mhlanga - The National University of Science and Technology (NUST)

The Energy Transition Sustainable Challenge officially launched in Zimbabwe on 12 March 2026, bringing together students from National University of Science and Technology (NUST), Lupane State University (LSU), and Midlands State University (MSU). The initiative encourages students to develop practical solutions to energy transition challenges affecting communities in Bulawayo, Lupane, and the Midlands region.



Students and mentors during the second webinar review session of the Energy Transition Sustainable Challenge

Throughout the Challenge-Based Learning (CBL) journey, students worked collaboratively to identify local energy-related problems, document their processes, and define team responsibilities through activity mapping. These efforts helped strengthen teamwork, communication, and problem-solving skills while guiding participants toward actionable project ideas.

Following the second webinar, student teams presented progress reports to mentors led by Valentina Zaccharia, refining their “Big Ideas” into clear and time-bound problem statements. During the third milestone webinar, teams from the three institutions showcased their proposed solutions and project directions.

Participation in the challenge included 12 students from NUST, 16 students from LSU, and 12 students from MSU.

Mentors also reinforced the importance of analytical and strategic frameworks such as SWOT Analysis, TOSCA, Evaluation Matrix, and the Hypotheses Pyramid to help students strengthen their project proposals and objectives.

In parallel, participants completed self-assessments on “Habits of Mind,” evaluating the entrepreneurial and personal skills developed through the experience, including persistence, creativity, empathy, collaboration, flexible thinking, and continuous learning.

The midway milestone meeting, held on 12 May 2026, marked an important checkpoint where teams reflected on progress achieved and outlined the next steps toward addressing Zimbabwe’s energy transition challenges.

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Building The Future Of Energy Education Through Equity, Inclusion, And Industry Synergy:

The EU-COLMEV Vision At Universidad Metropolitana, Venezuela

by Aidaelena Smith-Perera & María Eugenia Álvarez-Bermúdez
Universidad Metropolitana - Venezuela

Within the framework of the EU-COLMEV project, Universidad Metropolitana (UNIMET) recently hosted a series of strategic co-design roundtables involving academics, industry representatives, students, alumni, and administrative leaders from partner institutions in Spain, Sweden, Colombia, Mexico, and Venezuela.

The initiative focused on modernizing energy education to become more inclusive, equitable, and aligned with evolving industry demands.

The discussions addressed three major themes: social inclusion, gender equality in STEM, and industry relevance. Participants examined barriers limiting access and retention for vulnerable groups and women in engineering programs, while also exploring ways to better integrate emerging market realities, technical competencies, and human skills into academic curricula.

The resulting diagnostic reports developed by UNIMET provide a practical roadmap for structural reform in higher education. Among the proposed actions are strengthening project-driven internships, creating flexible academic pathways for caregivers and working students, and reinforcing foundational science training.

Participants also emphasized stronger alignment between universities and industry expectations, ensuring that graduates are not only technically prepared, but also capable of adapting to rapidly changing technological and social environments within the energy sector.

The roundtables concluded with a shared vision: the global energy transition requires not only technical excellence, but also diversity, inclusion, and stronger collaboration between universities and industry to prepare the next generation of energy professionals.

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The Role And The Development Of Summative Assessment Modules, For Remote PV Laboratory Of UniWA

by Petros Axaopoulos - University of West Attica, Athens, Greece

To transform the UniWA Solar PV Remote Lab into a complete course within the EEDA LMS, three new Summative Assessment Modules have been developed, enabling the course to be delivered with a comprehensive academic evaluation component.

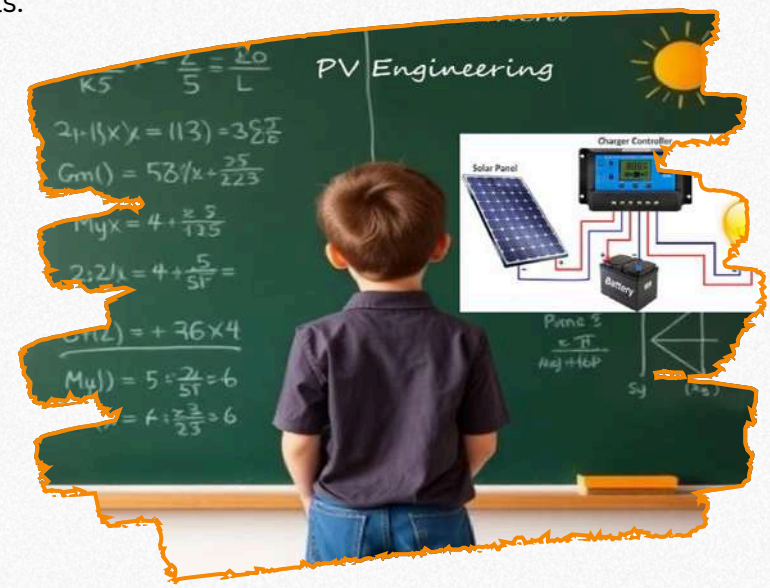
The Learnify platform offers a wide range of possibilities for developing theoretical lessons and laboratory activities. However, a complete learning experience also requires an effective mechanism for assessing students' understanding of both theoretical concepts and practical laboratory work. To address this need, three summative assessment modules, corresponding to a total of 10 ELH, were recently developed in the field of photovoltaic engineering.

The new modules are:

1. Summative Assessment on Solar Geometry
2. Summative Assessment of Operational PV Parameters
3. Summative Assessment on Stand-Alone Systems

These assessments complement the previously developed theoretical lesson and six experimental modules based on the Remote Solar PV Laboratory of the University of West Attica. Together, they provide an integrated framework for evaluating students' knowledge, analytical reasoning, and practical problem-solving skills.

Each assessment combines multiple-choice questions with numerical exercises that require learners to apply engineering principles and perform calculations based on realistic photovoltaic scenarios. Several activities are directly linked to laboratory experiments, encouraging students to interpret measurement data, analyze results, and connect theoretical concepts with practical observations.



Beyond measuring achievement, the summative assessments support deeper learning by encouraging students to synthesize knowledge acquired throughout the course.

In conclusion, the developed summative assessments can be considered to encourage students to synthesize and integrate knowledge from different parts of the developed modules and motivates them to review and consolidate their learning, leading to deeper understanding.

Finally, it is advisable that students' performance on the summative assessments be considered alongside their overall course grades. This combined evaluation offers a more complete picture of their capabilities, ensuring that both theoretical knowledge and practical skills are acknowledged and valued. Such an approach promotes a balanced development of competencies necessary for success in the field of solar PV engineering.

The respective individual modules are available inside the EEDA Learnify repository and the complete course (30 ELH, 1.09 SMCTS) can be read in the EEDA LMS.

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Call for Papers: Advances in Turbomachinery Research and Innovation

Researchers, academics, and industry professionals are invited to contribute to the upcoming special issue focused on emerging trends, technologies, and innovations in turbomachinery and energy systems.

We encourage members of the EEDA community and partner institutions to explore this opportunity for international scientific collaboration and publication.

EEDA TIPS & TRICKS

COLLECTING STUDENT FEEDBACK MADE EASY

Gathering meaningful feedback from learners is essential for continuously improving online courses. While many institutions rely on centralized evaluation systems, instructors may also benefit from collecting course-specific feedback directly from participants.

One practical approach is to embed a Google Form or shared feedback document within an LMS course. This gives instructors full control over the questions, timing, and analysis of responses, while allowing students to provide comments quickly and conveniently.

The example below, taken from an EEDA Academy course, illustrates how a feedback form can be integrated directly into the learning environment, creating a simple channel for continuous course improvement.

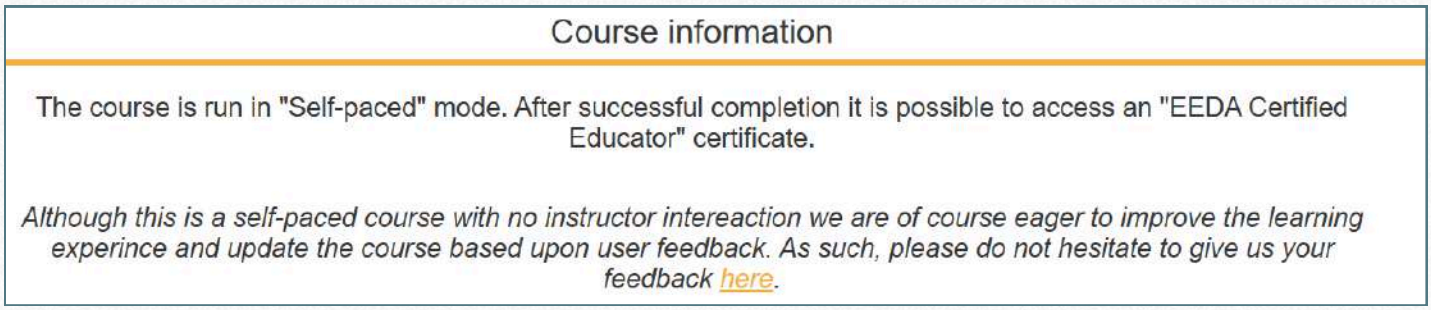


Figure 1. Example of a student feedback form integrated into an EEDA Academy course.

Suggested Image for EEDA Assessment Modules

Consistency across courses helps learners navigate the EEDA Academy environment more intuitively. When students repeatedly encounter the same visual elements for similar activities, they quickly recognize the purpose of a module and know what is expected of them.

For this reason, course developers may wish to use a common image for all EEDA Assessment Modules. A standardized visual identity not only improves the learner experience but also strengthens the overall coherence and professional appearance of the EEDA Academy.

The image to the right is recommended for use in assessment modules across EEDA courses.

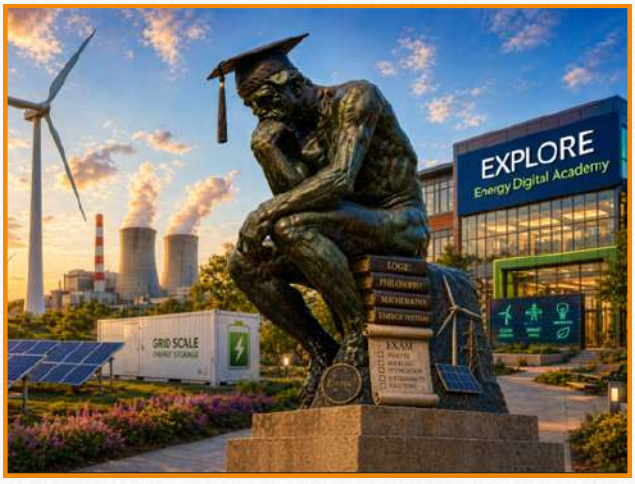


Figure 2. Recommended image for EEDA Assessment Modules to promote a consistent learner experience throughout the EEDA Academy.

Instructional Videos Available for Learnify

Creating engaging learning experiences often requires making the most of the digital tools available within the EEDA ecosystem. To support course developers and instructors, a collection of instructional videos has been prepared to demonstrate the effective use of Learnify tools and features.

These short tutorials cover different functionalities and provide practical guidance for designing, managing, and enhancing learning activities. Whether you are new to Learnify or looking to explore additional capabilities, these resources can help you work more efficiently and confidently.

The videos can be accessed through the EEDA Library under the section "Instructional Videos Learnify Tools."

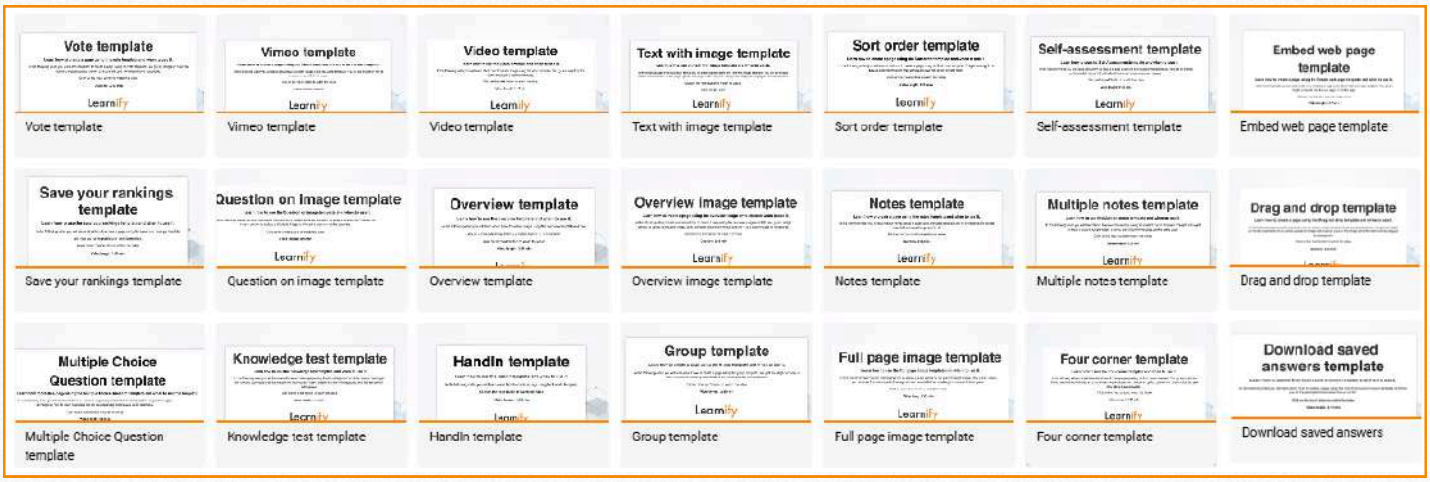


Figure 3. Example of the instructional video resources available in the EEDA Library. The full collection contains a wider range of tutorials covering different Learnify tools and functionalities.

THREE EEDA CERTIFIED EDUCATOR COURSES NOW AVAILABLE

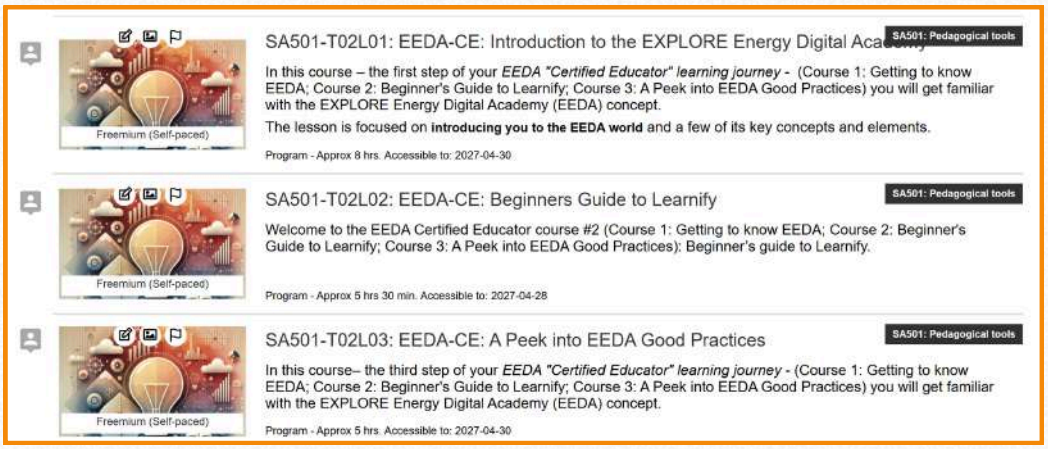


Figure 4. The EEDA Certified Educator training pathway provides educators with practical guidance on the effective use of EEDA concepts, tools, and methodologies.

Educators can now enroll in three dedicated EEDA Certified Educator courses available through the EEDA Academy to strengthen their teaching and digital learning skills.

These courses introduce the EEDA educational framework, key digital tools, and best practices for course development and delivery.

Upon successful completion, participants can generate a certificate and earn EEDA credits toward their professional development goals.

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.

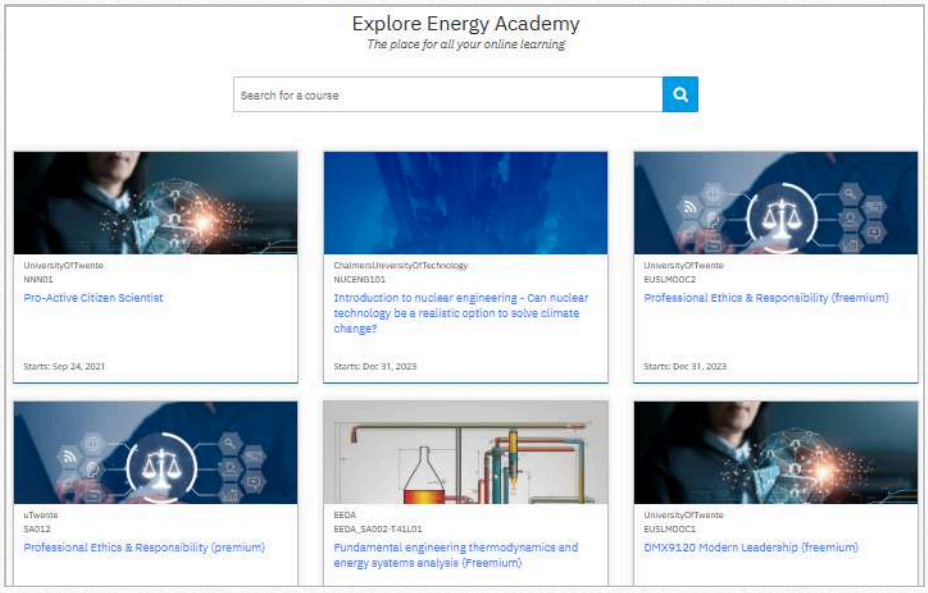
Beyond projects and institutions, EEDA is an open academic community where educators can engage, contribute, and collaborate at an individual level to generate lasting educational impact.

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



Stay Connected with EEDA

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

Learn. Share. Connect. Grow — together.

Follow us on:

Erasmus+ Capacity Building Projects

These projects are sponsored by the EU by the individual CBHE projects

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Website

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