



**BUILDING EUROPEAN  
NUCLEAR COMPETENCE**  
THROUGH CONTINUOUS ADVANCED  
AND STRUCTURED EDUCATION  
AND TRAINING ACTIONS



ISSUE 02/2024

**ENEN# Bulletin**  
SUMMER

Quarterly  
Newsletter

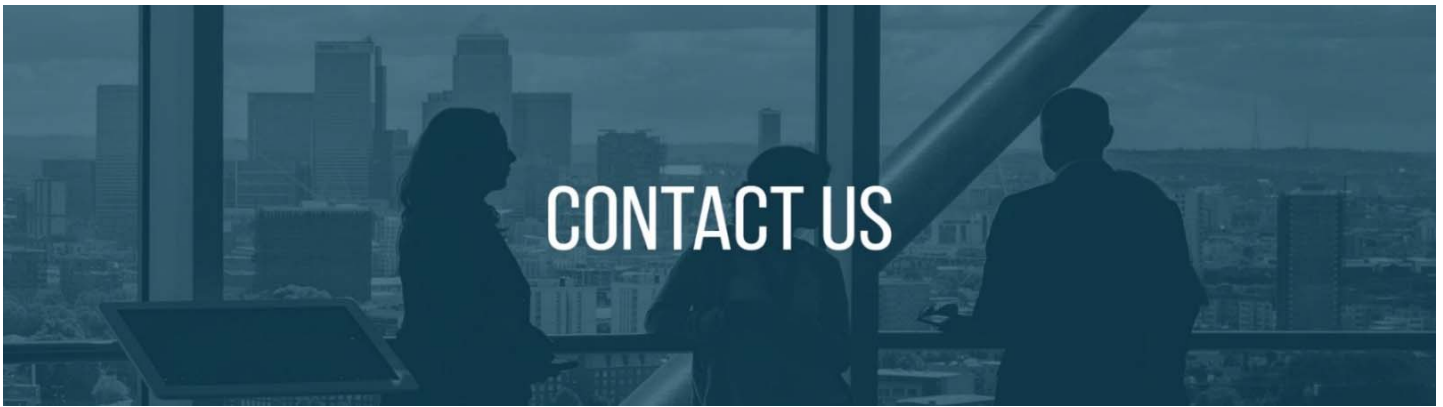
Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the European Commission can be held responsible for them.



Funded by  
the European Union

## Contents

Contact Us .....	3
Focus .....	4
Cross-YGN Activities – The Social Media Competition and future workshops .....	4
Event Schedule 2024 .....	6
ENEN BSc and MSc Nuclear Competition and Summer School.....	6
Review - 1 <sup>st</sup> BSc and MSc European Nuclear Competition and Summer School 2024 .....	11
16 <sup>th</sup> András Mester Nuclear Camp .....	13
Cross – YGN Workshops .....	17
ENEN2Plus Helsinki Bachelors School in Nuclear Science and Technology .....	18
Career Event – Working in the nuclear field .....	20
ENEN# Webinars .....	21



# CONTACT US



**Walter AMBROSINI** is Full Professor in Nuclear Plants at the University of Pisa, Italy.



**Csilla PESZNYÁK** is Medical Physics and Radiation Protection Expert in Budapest University of Technology and Economics and at National Institute of Oncology, Hungary. President of the ENEN aisbl.



**Štefan ČERBA** graduated from the Slovak University of Technology in Bratislava (STU) in the degree course nuclear engineering.



**Enikő KOSZTA** is a young Medical Physicist in Hungary. She is the technical editor of the ENEN2Plus Bulletin.



Contact Us  
[www.enen.eu](http://www.enen.eu)



Email:  
[csilla.pesznyak@gmail.com](mailto:csilla.pesznyak@gmail.com)

## Focus

## Cross-YGN Activities – The Social Media Competition and future workshops



The cross-sectional cooperation, made by the young sections of EFOMP (European Federation of Organisations for Medical Purposes), IRPA (International Radiation Protection Association), FuseNet (The European Fusion Education Network) and ENS (European Nuclear Society) as part of the ENEN2plus work package WP3 - Task 3.4, is continuing its fruitful discussions and planning its activities.

After the positive outcomes of the social media online competition “Demystify Nuclear” (February-March 2024), the cross-YGN cooperation organised a first couple of workshops, which took place in Bratislava, Slovakia, on 1<sup>st</sup> July 2024, during the 1st BSc and MSc Nuclear Competition and Summer School 2024. The event has been a great occasion to meet almost 40 BSc and MSc students from 19 countries, participating in the competition and representing different nuclear disciplines, like Nuclear Physics and Engineering, Medical Physics, Nuclear Waste Management and Safety, and Radiation Protection and Nuclear Fusion.



Among the representatives of the YGNs involved in the project, Leticia Irazola Rosales (EFOMP SG), Francisco Suarez Ortiz (ENS-YGN), and Jan Čečrdle (FuseNet) shared their stories and experiences with the students attending the event, letting them explore the multiple opportunities that nuclear education paths can offer, as well as to present the active networks that gather nuclear youth all over Europe.

**Workshop I – Your Future in Nuclear: Exploring a World of Career Opportunities** was indeed aimed to present the several job opportunities that the nuclear sector offers, sharing the personal experiences and stories of the YGNs representatives. By learning more about speakers’ professions, we wanted to highlight multiple education paths, different career opportunities, but also the interconnections between the many sectors of nuclear science and technology.

After the speakers’ presentations, students have been actively engaged with an interactive survey to explore their motivations, their expectations, and their goals for a career in nuclear. Among the outcomes, the choice of the nuclear field is mainly motivated by students’ passion and curiosity, which made them choose disciplines with highly innovative potential. Moreover, the “social-added value” of nuclear sciences, their impact in shaping the future and making the difference, play an important role in motivating their choices.

**Workshop II - YGNs in Nuclear** introduced the presence and the activities of Young Generation Networks, which gather nuclear students and young professionals all over Europe. The session aimed to inform the students about these organisations and their role in supporting and activating young generations. After the presentations, students have been distributed in working groups, to discuss separately, and then together, the challenges that YGNs could face in reaching out new members and be more visible, suggesting possible solutions and strategies. The debate of this final session has been particularly active, and fruitful for the organisers, who took note of the audience's opinions.



*The YGNs representatives together with the students participating in the 1st BSc and MSc Nuclear Competition and Summer School 2024*

The Cross-YGN team is currently planning one more workshop next 11<sup>th</sup> September, in the occasion of 5th European Congress for Medical Physics and the parallel ENEN PhD Event & Prize, taking place in Munich, Germany. *Nuclear for Health - The role of nuclear science from the target to the hospital* will be the first workshop, highlighting the different steps and roles of nuclear disciplines in the radioisotopes supply chain, and showing the broad areas in which PhDs can develop further their careers. YGNs representative will then illustrate each stage with specific attention to their experience, their careers, and their involvement and contribution to innovation and research. In details:

- **Gawel Madejowski** (ENS-YGN) will present his activities and studies in a research reactor, investigating irradiation methods for the production of radioisotopes;
- **Ben Phoenix** (on behalf of FuseNet) will talk about the use of cyclotrons to produce radioisotopes, so coupling research reactors and offering a comprehensive overview of the main production systems;
- **Joel Piechotka** (IRPA-YGN) will explore the key role of radioprotection in the radioisotope's transportation and the waste management
- **Leticia Irazola Rosales** (EFOMP) will finally show radioisotopes' multiple applications in the medical field.

The second workshop, *Interesting opportunities for young scientists and their mentors*, will offer another overview of YGNs their activities and the opportunities they offer. This session wants to address PhD attendees, junior professionals, or senior experts, who could spread the word with younger colleagues or mentees. Joel and Leticia, representing the abovementioned organisations, will be supported by Carlos Vazquez Rodriguez (ENS-YGN) and James Tufnail (FuseNet) to provide a comprehensive overview of the European dimension of the nuclear YGNs.



**Mattia BALDONI** is Communications Officer at the European Nuclear Society, which promotes the development of nuclear science and technology and the understanding of peaceful nuclear applications. Based in Brussels, ENS brings together more than 12,000 professionals from the academic world, research centres, industry, and authorities. ENS is also a long-standing partner of ENEN and it is participating in the ENEN2Plus project, leading the Task 3.4. (*Setting up networking cross-YG and cross-professional organizations*).

## Event Schedule 2024

### ENEN BSc and MSc Nuclear Competition and Summer School

– SUMMARY AND FEEDBACK FROM THE PARTICIPANTS –

On 1<sup>st</sup> – 5<sup>th</sup> July 2024 the BSc and MSc Competitions and Summer School took place in Slovakia. This Competition was held in the frames of the ENEN2plus project which stands for Building European Nuclear Competence through continuous Advanced and Structured Education and Training Actions. Following the comprehensive activities of the ENEN2plus consortium to make the event visible, 84

unique applications were received, among which 17 applied for the BSc competition and 67 for the MSc competition. The evaluation process resulted in 40 qualified participants while another 10 participants were placed on the waiting list, to replace some of the participants who do not confirm their participation. The remaining applicants have been found ineligible.

**Finally, 11 BSc and 29 MSc students were selected for the event and distributed to nuclear domains as follows:**

- Nuclear physics and engineering – MSc competition: 8
- Radiation protection and nuclear fusion – MSc competition: 6
- Medical physics – MSc competition: 8
- Nuclear waste management – MSc competition: 7
- Nuclear physics, engineering, safety and waste management – BSc competition: 6
- Radiation protection, nuclear fusion and medical physics – BSc competition: 5

In total 30 countries were represented in the applications, among which 11 were member countries of the European Union, 4 were European non-EU countries, 5 Asian countries, 8 African countries and 1 South-American country.

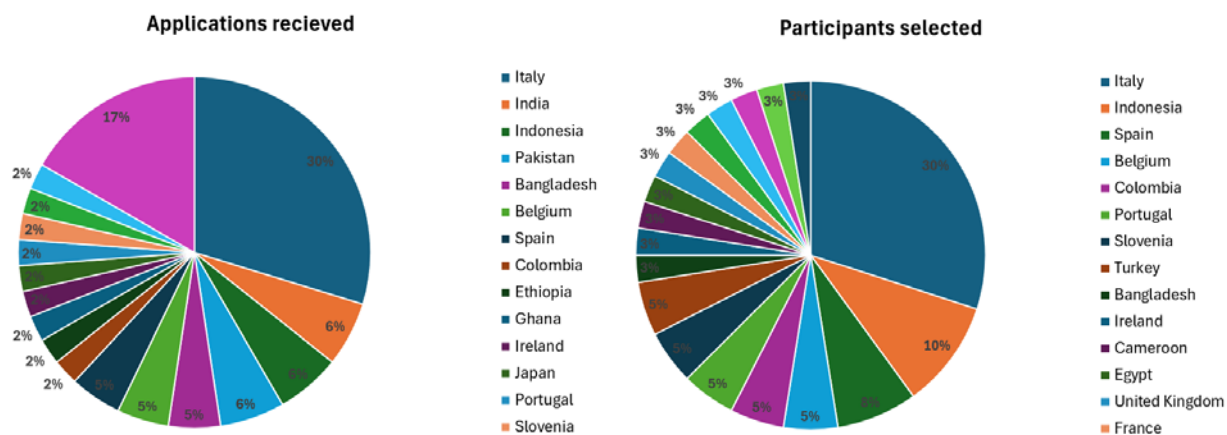


Figure 1 – Distribution of the involved countries

For each nuclear topic, a scientific evaluation committee was established, consisting of members from the ENEN2plus consortium. The key responsibilities of the committee included increasing the visibility and impact of the event, collecting, sorting, and evaluating applications related to the nuclear topics, selecting students for the event, welcoming them, actively participating in the students' presentations, evaluating their performance, and choosing the winner. The personal structure of the evaluation committee was the following.

*Chair of organizing committee: Štefan Čerba (STU)*

*Chair of the jury: Csilla Pesznyák (BME)*

#### **Members of the Nuclear Physics and Engineering committee:**

- Walter Ambrosini (UNIP)I)
- José Cesar Queral Salazar (UPM)
- Barbara Ferrucci (ENEA)
- Lois Tovey (UNILED)S)

#### **Members of the Nuclear Waste Management and Safety committee:**

- David Harbottle (UNILED)S)
- Stellan Holgersson (CHALMERS)
- Gabriel Law (UHEL)
- Francisco Javier Elorza (UPM)

#### **Members of the Radiation Protection and Nuclear Fusion committee:**

- Gabriel Pavel (ENEN)
- Ján Haščík (STU)
- Darío Andrés Cruz Malagón (FUSENET)
- Jan Kameník (MPI)
- Justyna Jaczewska-Özcan (NCBJ)

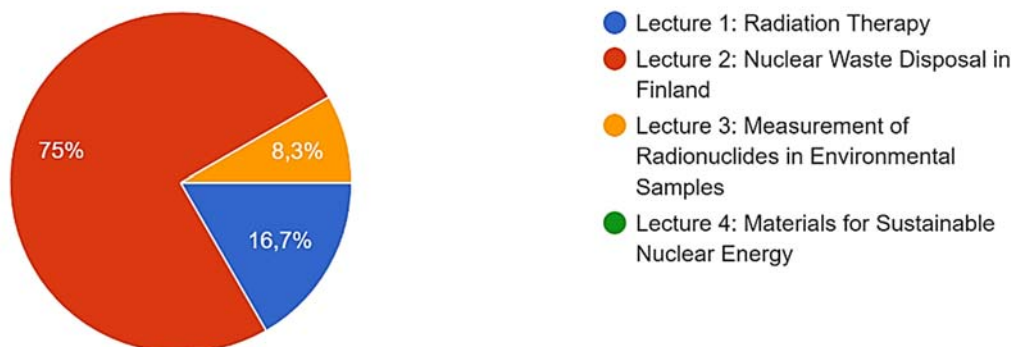
#### **Members of the Medical Physics committee:**

- Veronica Rossetti (EFOMP)
- Tom Clarijs (SCK CEN)
- Gillian Power (EFOMP)
- Gábor Stelzer (BME)

The competition had two components: the presentation of students' work and active participation in lectures and hands-on exercises through quizzes. The total score was divided as follows: 80% from the presentation and 20% from participation in quizzes.

#### **The summer school included the following theoretical lectures and practical exercises:**

- Lecture 1: Radiation therapy
- Lecture 2: Nuclear waste disposal in Finland
- Lecture 3: Measurement of radionuclides in environmental samples
- Lecture 4: Materials for sustainable nuclear energy for current and future nuclear systems



*Figure 2 – Interest of the students in the lectures*

- Exercise 1: Tools for nuclear data processing and visualization
- Exercise 2: Engineering tools for reactor core calculations
- Exercise 3: Radiation protection exercise
- Exercise 4: Radiation treatment planning

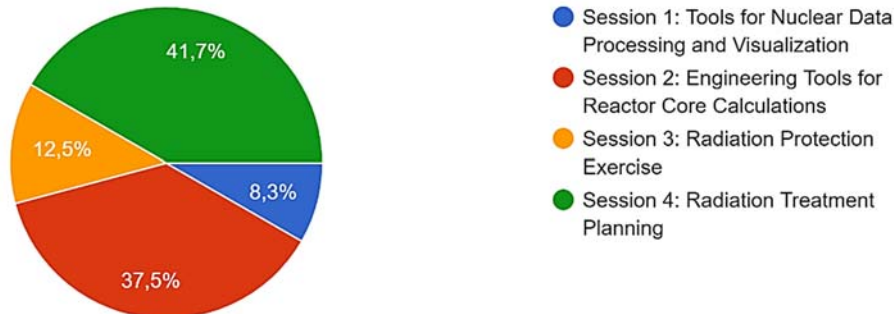


Figure 3 – Interest of the students in the exercises

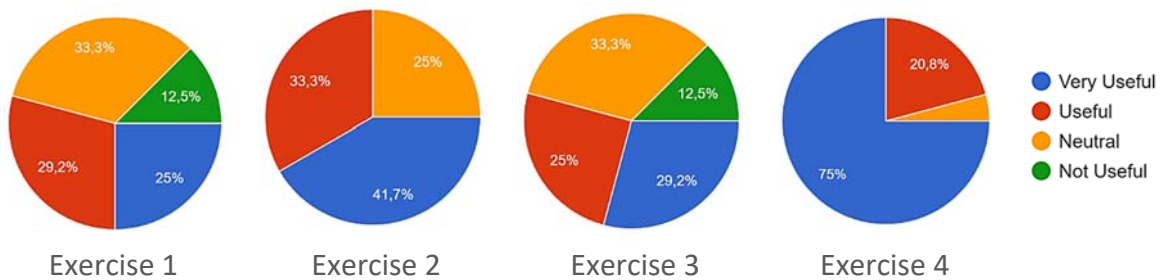


Figure 4 – Usefulness of the exercises according to the students

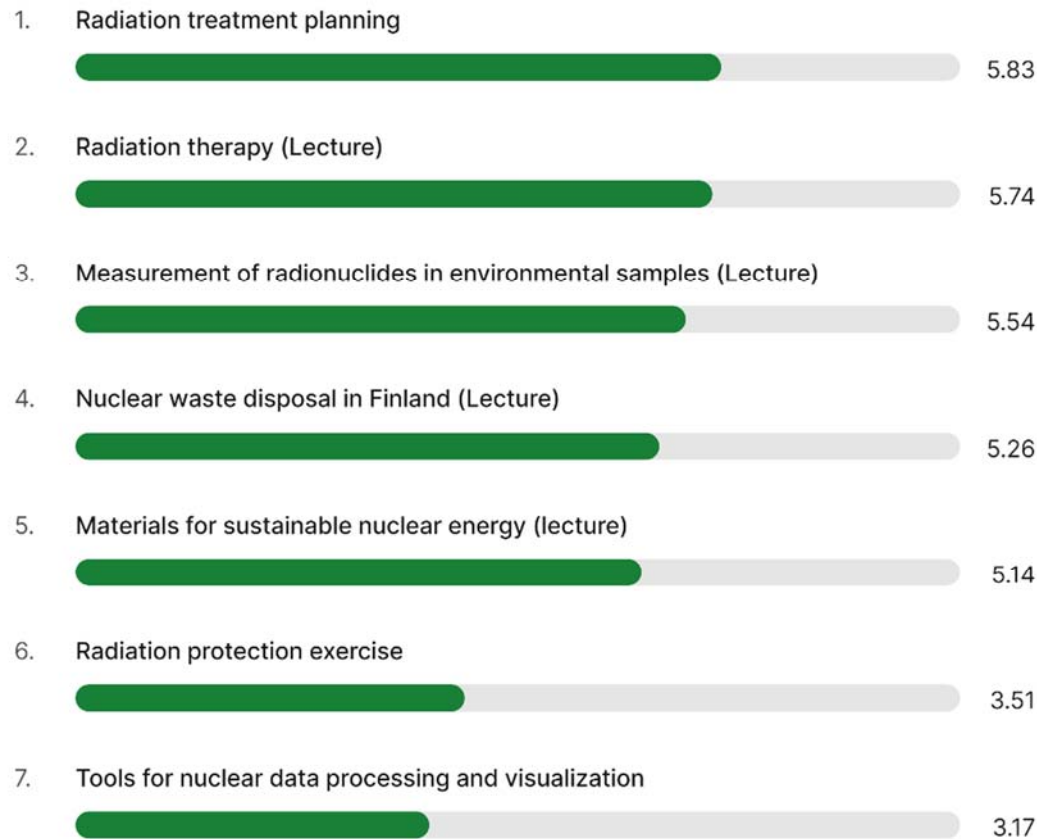
Having all parts of the event completed, 3 awards were given for the best BSc students, 8 awards for the best MSc students (2 per nuclear domain) and 3 special awards for the students receiving the highest scores from the quizzes. The following winners have been selected.

#### LIST OF THE WINNERS

- Serdar Yildiz (BE) BSc Competition Winner
- Sven Jaspers (BE) BSc Competition Winner
- Caterina Frau (IT) BSc Competition Winner
- Nikola Petreski (RS) Quiz Award Winner
- Sophie Deanesi (IT) MSc Competition Winner – Nuclear energy
- Juan Jose Gomez Rodrigues (CO) MSc Competition Winner – Nuclear energy
- Jasmin Joshi-Thompson (GB) MSc Competition Winner – Radiation protection and nuclear fusion
- Luca Eugeni (IT) MSc Competition Winner – Radiation protection and nuclear fusion
- Patricia Valdes Portas (ES) MSc Competition Winner – Nuclear waste management
- Flavia Guidubaldi (IT) MSc Competition Winner – Nuclear waste management
- Alberto Gil (ES) MSc Competition Winner – Medical Physics
- Anna Magdalini Psyriou (GR) MSc Competition Winner – Medical Physics
- Valentin Roch (FR) Quiz Award Winner
- Nicola Zancopè (IT) Quiz Award Winner



As this competition was the very first of its kind, it was very important to identify areas in which the quality and the structure of the event has potential for improvement. The feedback forms were distributed to the participants after the event, as well as a short Slide poll was completed during closing session of the event. The results are as follows.



*Figure 5 – Ranking of quizzes from the easiest to the most difficult*

From the Participants Feedback we also received interesting comments on main challenges they encountered and some suggestions to improve. Some lessons learned and recommendations for future editions include the following:

1. Optimizing Time Management:
  - Challenge: Time constraints often left students feeling rushed and unable to fully grasp the material.
  - Improvement: Future editions can allocate more time for practical exercises, allowing students to work at a comfortable pace and ensuring a deeper understanding of the material.
2. Accommodating Diverse Backgrounds:
  - Challenge: The exercises did not adequately accommodate the varied backgrounds of participants, leading to difficulties for some students lacking prior knowledge in certain areas.
  - Improvement: Tailoring exercises to be inclusive of all backgrounds by providing introductory material or pre-session resources can help bridge knowledge gaps and enhance the learning experience for everyone.

### 3. Simplifying Complexity and Pacing:

- Challenge: The complexity and pace of some exercises, along with the use of unfamiliar tools, made it challenging for students to follow.
- Improvement: Introducing complex topics gradually and ensuring a slower, more manageable pace can help students keep up. Additionally, offering tutorials or basic introductions to unfamiliar tools like Linux and MATLAB can build confidence and competence.

By implementing these improvements, future editions of the course can offer a more supportive and enriching learning environment, ensuring that all students, regardless of their background, can successfully engage with and benefit from the practical exercises.

### *Conclusion*

The results of the surveys and an open discussion with the participants provided valuable feedback on the event, highlighting several key points. Overall, the event was well-received, with many enjoying the organization and balance between work and breaks. The multidisciplinary approach was appreciated for providing a broad perspective. Most of the participants expressed gratitude for the opportunity and professional networking the event provided.



**Kateryna PILIUHINA** is a Project Manager at ENEN. She is an Energy Engineer by education and a nuclear addicted person by heart. Before joining ENEN she had an experience of working for the Ukrainian Government and European Commission support organisations in Ukraine where managed about 15 international nuclear and radiation safety projects in the nuclear field varying from nuclear fuel diversification at NPPs to decommissioning and environmental remediation of the former uranium processing plant. In ENEN Kateryna manages and provides communication support to several EU-funded projects and acts as a leader for one of them (SaTE project).



**Štefan ČERBA**

## Review - 1<sup>st</sup> BSc and MSc European Nuclear Competition and Summer School 2024

### The presentation

The central and most challenging part of this event was the presentation of my MSc thesis results in front of a jury of experts in different nuclear fields. I had the chance to share most of my results on the subject “Verification of the qualified nodalization of the Table Top facility”, which I will be working on until the end of August at SCK CEN. It was above all the occasion to improve my presenting skills such as concision and precision, but also dynamism and clarity during both the presentation and the question time. The specific questions from the jury and the audience made it even more challenging. It was also very stimulating to witness such a high technical level and passion among the other competitors.

### The summer school

I was also enthusiastic about the rest of the event which consisted out of four theoretical lectures followed by four practical exercise sessions. Of course, the wide range of subjects did not allow us to become experts in one field, but it was a way to assess the students’ nuclear culture and ability to understand and apprehend new phenomena and tools outside their specialization field. For my part, I especially learned a lot during the sessions related to uncertainties in nuclear data and

radiation therapy, which I did not study in nuclear engineering at the INSTN. I was also introduced to new software and codes that might prove useful in my future career such as DICE/JANIS/NDaST, ANDREA, VISIPLAN 3D ALARA and MatRad. For the rest, it was a great opportunity to apply my skills from the Génie Atomique to time-limited real-life situations, sometimes in collaboration with other students despite the competitive environment.



## The networking



What made this experience unique was most and foremost the different dedicated moments to develop my network and social relations. The two social evenings, the lunch-and coffee breaks allowed me to create special bonds with other students from different nuclear fields and from all over the world. Similarly, having the possibility to get information directly from internationally renowned nuclear experts inspired me with interesting PhD topic ideas and job opportunities.

The presence of Young Generation Networks in different nuclear sectors added concreteness to the event. They help maintain cohesion within the nuclear sector, and I am glad to know I can count on them should the need ever arise.

### The impact on my carrier

To conclude, I would say that this event was an excellent preparation before entering the competitive professional world of nuclear engineering. The worldwide recognition of the quality of ENEN events makes my reward for the MSc quiz (for my grades in the theoretical and practical sessions) even more impactful. It is for sure something truly valuable in the eyes of future recruiters that I will keep highlighting. To conclude, I would say that this event was an excellent preparation before entering the competitive professional world of nuclear engineering.



**Valentin Roch**

## 16<sup>th</sup> András Mester Nuclear Camp Keszthely, Hungary, 01-06 July, 2024

### Organization, venue

The camp was organised by several people. The professional programme, the announcement poster, the application form and the application for ENEN support were prepared by Péter Tarján. Sándor Ujvári kept in touch with the participants. Catering, accommodation and bus transport were arranged by László Farkas and Margit Fábián. The programme of the visit to the HUN-REN Centre for Energy Research and the ordering of T-shirts was organised by Margit Fábián. Gergő Pokol and Beáta Jarosievitz contributed useful ideas. The camp leaders were Sándor Ujvári and Péter Tarján. Márton Vavrik and Csongor Szegedi-Csinády (from the Youth for Nuclear Energy branch of the Hungarian Nuclear Society) participated in the camp as junior supervisors. As a local organiser, László Farkas provided invaluable help in organising both the professional and recreational activities. As in previous years, the camp was hosted by the Vocational School for Catering in Keszthely, Hungary. Accommodation was in the dormitory of the institution, the lectures were held in the school building. Most of the meals were served in the canteen of the school (with the help of an external company). *The camp was attended by 23 participants.* We would have liked to have had around 30 participants, and we had enough, but unfortunately many people cancelled the camp in the last days. Some of these were presumably due to other physics-related camps with clashing schedules.



### Programme

As in previous years, the programme was organised such that the talks were mainly held in the morning. The talks included introductory sessions alongside lectures by renowned nuclear experts. In total, 14 talks were given by 11 speakers. We had tried to develop the topics of the technical programme in the light of last year's feedback, including several theoretical and experimental particle physics lectures. On 3 July we took part in a full-day bus excursion to the HUN-REN Centre for Energy Research, where lectures and laboratory visits gave an insight into the Centre's research topics. Among the other activities were a laboratory measurement (determining Planck's constant based on the forward voltage of LEDs) and a simulation exercise (modelling the electricity production of a country) in the laboratories of the Vajda János Grammar School, led by László

Farkas, Sándor Ujvári and Péter Tarján. This time there were fewer than usual lab experiments, but more time was devoted to them, so that we could get more in-depth on both tasks. The participants also enjoyed three spectacular experimental shows courtesy of Örs Asztalos, Péter Tarján and Sándor Ujvári. The first evening's "getting acquainted" activities and the nuclear team- and individual competitions (organised by the junior supervisors) were also popular. Sándor Ujvári initiated a problem-solving competition on the first day, for which the solved problems could be submitted until the penultimate day. On the last evening, we organised an informal discussion about the camp, physics and future prospects, which was also enjoyed by the students.



*The experimental shows by Sándor Ujvári Sándor and Péter Tarján*

Unfortunately, the weather was not very favourable for swimming in Lake Balaton. The cooler weather on the first day improved only slowly during the week; on the fourth day of the camp we were able to swim in the lake for the first time, although by then the water had cooled down considerably. To compensate for this, on the fifth day we swam for a couple of hours in the thermal lake in neighbouring Hévíz; afterwards we walked/jogged back to the dormitory (a 6.5 km hike). The local activities were organised by László Farkas, teacher of physics at the Vajda János High School in Keszthely. Under his guidance we visited the sights of Keszthely, the castle and the model railway exhibition.



*Visit to the Centre for Energy Research*

## Summary

No incidents occurred during the camp. We deviated from the preliminary programme from time to time, depending on the weather. On the last day of the camp, we evaluated the camp and awarded prizes to the best participants. This year, as a tradition, and in memory of the founder of the camp, we created the András Mester Award, which is awarded to one participant, based on the votes of the organisers and the participants. This year the prize was awarded to János Daniel Simon, who submitted the best simulation lab report and the best measurement lab report, and was

also the best in solving numerical problems. The prize was presented by the widow of András Mester. The campers left satisfied. We are grateful to the President, Secretary and Board of the Hungarian Nuclear Society, and to the colleagues who worked on the camp for their participation in the organizational work. Thanks are due to the hosts from Keszthely who gave maximum support to the work of the camp. Special thanks go to the speakers who volunteered their time and effort by travelling to Keszthely (in some cases from quite far away).



*Group photo in the Centre for Energy Research.  
Participants are wearing the official T-shirt of the camp.*

### Satisfaction survey

Participants were asked to provide feedback with a Google Form after the camp. This was completed by 19 out of 23 participants. (The graphical results are not reproduced here, because the graph labels are in Hungarian.) Most of the students had heard about the camp at school or through friends. A quarter of the participants had attended the camp for the second or, in one case, the third time. The relatively high number of "returning customers" is good feedback that they had a good time. In response to the question "Check the talks you liked the most! You can choose up to 5", there was a wide range of responses, with all the talks making it into someone's top 5.

#### The most popular answers were:

- Balázs Ujvári's talk on the importance of precise timing in CMS (chosen by 14 out of 23 respondents)
- Ákos Horváth (Eötvös University) on the natural nuclear reactor in Gabon (14)
- Csaba Sükösd's lecture "Close to Creation" (13)
- Dániel Réfy's lecture on fusion (12)

The introductory lectures in nuclear physics, which were given by Péter Tarján, also made it into the "top 5" of 4 students – a relatively high ratio, considering it was a parallel session with only 9 participants.

#### The other professional programmes received a fairly positive evaluation:

- Örs Asztalos' plasma tube demonstration scored 4.26 on a scale of 5
- Sándor Ujvári's fun experimental show scored 4.84
- The visit to the Centre for Energy Research scored 4.31
- Péter Tarján's laser experiment show scored 4,26
- Group quiz led by the junior supervisors scored 4,16
- Lab measurements and simulation 4,37
- Friday evening informal discussion about the camp, physicists and more 4,58

We asked them how satisfied they were with the various camp venues and recreational activities on a scale of 5. The results show that the participants were quite positive about the non-professional aspects of the camp. There was less dissatisfaction with the food than last year; both the quality and

quantity of food were significantly better than the previous year. Not everyone was entirely satisfied with the state of the dormitory, which left something to be desired. Unfortunately, the weather was not very favourable for being at the lake, which is also reflected in the scores.

We asked them what they would have liked more or less of. Some found the beach time and the amount of meals to be too little, another issue was too little free time, but the majority of respondents were satisfied with the time spent on activities.

When asked "If you get the chance, would you come to the next Nuclear Camp?", all 19 respondents said yes.

A surprisingly high number of people answered the optional question on what other topics they would have liked to see. The most missed topic seems to be astronomy and astrophysics, and it is definitely worth inviting such speakers to next year's camp. Other topics raised should also be considered.

It is encouraging that, following feedback from last year, the particle physics lectures included in the programme have proved popular and some people would like to see more of them.

Finally, students could write (optional) text comments with useful suggestions for the future. Some of these (e.g. longer chunks of leisure time) we'll try to heed next year.

Based on the feedback we received after last year's camp, the following changes were planned for this year:

- ✓ Schedule 3 lectures each morning instead of 4; this way there was actually time to give our brains a bit of rest and/or talk to the speaker.
- ✓ Parallel sessions on the first 2 days: introductory lectures for the younger students (radioactivity, nuclear physics, etc.), technical lectures for the more experienced ones.
- ✓ Giving students the opportunity to give a 10-15-minute presentation on a topic of their choice: either their own research or any part of modern physics.

Of these, the first two were implemented (parallel sessions were actually only in the first morning) and proved to be useful changes (although there were still some speakers who overran their allotted time). Student-led mini-lectures were also planned, but were eventually announced too late, so there were no takers. We will have to pay more attention to this in the next camp.



**Péter Tarján** graduated as a physicist and technical translator from the University of Debrecen, where he subsequently also got his PhD in high energy physics. He has worked at the University of Nyíregyháza since 2004, teaching various courses in physics to teachers-in-training and engineering students. He has been involved in organizing the Leó Szilárd National Physics Competition since 2018 and in organizing the Nuclear Camp since 2023.



**Sándor Ujvári** is a physics teacher at Kornél Lánosz High School in Székesfehérvár, Hungary. His main interests are teaching physics via experiments as well as nuclear physics. He has a PhD in teaching modern physics. He has held several positions at the Roland Eötvös Physics Society and the Hungarian Nuclear Society. He has been involved in organizing the Leó Szilárd National Physics Competition and the Nuclear Camp for a long time.



Cross – YGN Workshops



# Cross-YGN Workshops

**11 September 2024, 16:00 - 18:00**

Science Congress Center Munich, Germany

**Registration:**  
**Link in the post**



## Nuclear for Health The role of nuclear science from the target to the hospital



JOIN US, explore the radioisotope supply chain and discover how young professionals are driving innovation & research in nuclear disciplines, from production to patient care.

## A Network of European YGNs Opportunities for young scientists and their mentors



YGNs will present their activities and the opportunities they offer, addressing PhDs, junior professionals, or senior experts, who could share them with younger colleagues or mentees.

Funded by the European Union

Disclaimer: Funded by the European Union. Views and opinions are however those of the author(s) and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

## ENEN2Plus Helsinki Bachelors School in Nuclear Science and Technology

The School is a premier educational event organized by the Departments of Chemistry and Physics at the University of Helsinki, Finland. The school is scheduled to take place from October 22-24, 2024, in Helsinki. The event aims to enhance the knowledge and skills of B.Sc. students in related disciplines, preparing them for advanced studies and careers in nuclear technology, radiation protection, radioactive waste management, and the medical applications of radionuclides.

### Objectives:

- To provide in-depth knowledge and skills related to nuclear technology and its applications.
- To increase competitiveness and engagement among B.Sc. students interested in pursuing careers or further education in nuclear science and technology subjects.
- To offer practical demonstrations and site visits to reinforce theoretical learning and highlight the exciting study options and careers available in the science area.

# EVENT HIGHLIGHTS

OCTOBER 22-24, 2024

*UNIVERSITY OF HELSINKI | CITY CENTRE CAMPUS*



### Topics include:

- civil nuclear fuel cycle
  - small modular reactors (SMRs)
  - nuclear decommissioning
  - radiation safety and regulation
  - environmental radiation monitoring
  - radionuclide production and measurement
  - medical applications of radioisotopes
- **Target Audience:** B.Sc. students over 18 years old, from diverse scientific backgrounds.
  - **Expected Attendees:** 20 students.
  - **Educational Content:**
    - Lectures from experts in Finnish academia, research organizations, companies, and regulatory bodies.
    - Tours and practical demonstrations at national facilities: VTT Nuclear Safety Laboratories, Helsinki University Hospital, Nuclear regulator (STUK) laboratories; University of Helsinki Radiochemistry and Accelerator Laboratories.

### Funding and Support:

There are no registration fees for attendees.

Successful applicants from outside Finland can apply for travel, accommodation, and subsistence funding support through the ENEN2plus mobility committee.

Finnish applicants can attend the school, but they are not eligible for ENEN2plus support.

### Selection Process:

Applications with attachments should be sent to email address: ***applicationoctober2024@gmail.com***

A selection committee consisting of academic experts at the University of Helsinki will evaluate applicants. Selection will be based on motivation letters, academic merits, and a recommendation letter that must be provided by a study tutor of the applicant (e.g., a University Professor). Emphasis is placed to ensuring gender diversity and representation of various nationalities.

### Outcomes:

Participants will gain valuable insights and practical experience across many areas pertinent to the civil nuclear industry, the medical use of radionuclides, emerging nuclear technologies, and safety regulation in these areas. Attendance will enhance a student's possibilities for further study or a career in these areas.

### Acknowledgments:

The Helsinki School in Nuclear Science and Technology is supported by the ENEN2plus project (HORIZON-EURATOM-2021-NRT-01-13 101061677) funded by the European Union.



©Uni Material Bank



**Susanna SALMINEN-PAATERO** (PhD in radiochemistry) works as a university researcher at the Department of Chemistry, University of Helsinki. She has participated to international and national research projects as a project manager or as a team member. Her work has been focused on environmental radioactivity and nuclear decommissioning, including identification of nuclear contamination sources, radiolead age dating, radioanalytical methods, intercomparison exercises, and biological enrichment of radionuclides. She supervises BSc and MSc students in radiochemistry.

## Career Event – Working in the nuclear field

The University of Pisa, within the CIRTEN Consortium, is organising a hybrid career event in the frame of the ENEN# project, offering to students and graduates from Italian Universities and abroad to meet in presence or online with representatives of industries, Research Centres and other bodies involved in nuclear energy applications, to discuss experience and present opportunities for working in the nuclear field. In the morning, the event will host presentations about the experience of work in nuclear field and in the afternoon “career speed dating sessions” with industries, research centres and other bodies are organised.



# WORKING IN THE NUCLEAR

Experience and Opportunities      A Career Event

save the date WEDNESDAY | October 30th | 2024



*Centro Congressi "Le Benedettine"*  
*Piazza S. Paolo a Ripa D'Arno, 16 - Pisa, Italy*



**Walter AMBROSINI** is Full Professor in Nuclear Plants at the University of Pisa, Italy. His Research interests involve the field of Nuclear Reactor Thermal-hydraulics. He has been President of the Research Doctorate in Nuclear Engineering in Pisa (2008-2016), President of the MSc in Nuclear Engineering in Pisa (2011-2018), President of the European Nuclear Education Network (2013-2016), Member of the ASN Commission for Energetics and Nuclear Engineering (2018-2021), Present Member of the CDs of CIRTEN and of the Associazione Italiana Nucleare (AIN). His relevant Memberships: AIN, ENS, ANS, ASME.

## ENEN# Webinars

---

*Dear Lecturers and Attendants, Dear Colleagues,*

*Our Series of Past-Student and Expert Webinars in Nuclear Energy of the academic year 2023-2024 is over, while waiting to restart a brand new one in next November 2024.*

*Thanking you all for contributing, attending and spreading knowledge about the webinars, we wish also to acknowledge the support of the European Nuclear Education Network in the frame of the ENEN# project and the cooperation of the European Nuclear Society and of the University of Pisa in distributing the related information.*

*In order to monitor the level of accomplishment of our objectives, we ask you 5 minutes of your time to evaluate the experience you had as attendants or lecturers, thus providing us with your suggestions for improvements in the next series.*

***Please, find a short form to be filled at the [link](#).***

***At the [link](#) you will find the list of webinars and the links to the available recordings.***

*Thanks in advance and see you in November for the new series!  
Sincerely,*



**Walter AMBROSINI**



## European Nuclear Education Network

**MISSION** The mission of ENEN is the preservation and the further development of expertise in the nuclear fields by higher Education and Training.



**APPLY.ENEN Platform** To apply for education and training courses.



**ENEN PhD Event & Prize** It is co-sponsored by ENEN, the European Commission Joint Research Centre (JRC), and the organizer of an international conference.



**EMSNE Certification** The European Master of Science in Nuclear Engineering (EMSNE) is endorsed by all ENEN members.



**ENEN Newsletter** A quarterly publication with regular updates about projects ENEN is involved in, news, partners initiatives, etc.



**PROJECTS PORTFOLIO** ENEN manages European Commission funded projects both as Coordinator and as Consortium Partner. Main activities include:

- ❖ Dissemination & Communication
- ❖ Exploitation of results
- ❖ International Mobility travel fund

### Members of ENEN

- Universities,
- Research organizations,
- Regulatory bodies,
- Nuclear industry

ENEN welcomes as well, International Members and Partners.



secretariat@enen.eu  
Rue d'Egmont 11, Bruxelles 1000 – Belgium  
www.enen.eu



The European Nuclear Education Network (ENEN) is an international non-profit organization (INPO) established under the Belgian law.