The South-East European Nuclear Physics Network (SEENet)

A template platform for scientific cooperation in South-East Europe



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Status of things Achievements and Problems Future Actions

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Institute of Nuclear Physics - National Center for Scientific Research "Demokritos"

Institute - Overview
Location

People

Staff

Publications

Research Papers

Other Publications

Research

Activities

Facilities

TANDEM Services

Beam time request

Beam time schedule

Tandem News

Info - Events

News and Events

Links

"... the nature of the perpetual things consist of small particles infinite in number... the particles are so small as to be imperceptible to us, and take all kinds of shapes and all kinds of forms and differences of size. Out of them, like out of elements (earth, air, fire, water) he now lets combine and originate the visible and perceptible bodies..."

~ 450 B.C. Democritus

Institute - Overview

The Institute of Nuclear Physics is working within the National Research Center Demokritos since 1987

Research:

- 1. Particle_Physics
- 2. Nuclear_Physics
- 3. Astrophysics-Cosmology
- 4. Experimental_Techniques
- 5. Grid

Teaching:

The Institute of Nuclear Physics (INP) participates in the graduate education for the acquisition of a Master and Ph.D. degrees in the fields of Nuclear and Particle Physics, in collaboration with Universities in Greece and abroad. The



SERVICES for INP MEMBERS

- . Webmail
- . Internal Users Only

ADDITIONAL INFO

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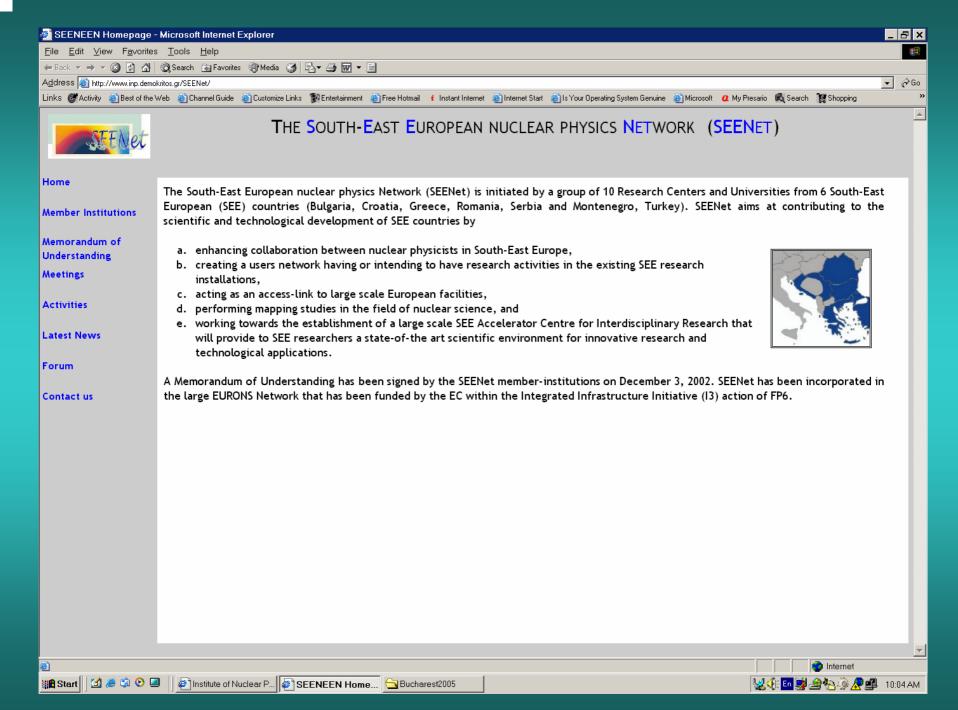
email: info@inp.demokritos.gr

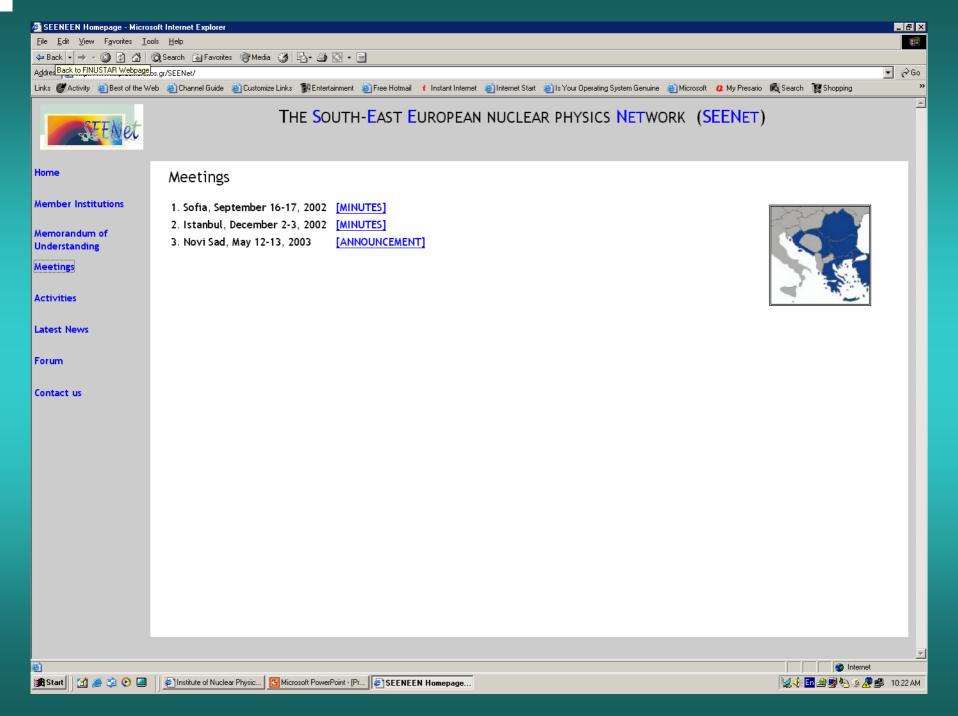
http://www.inp.demokritos.gr

Institute of Material Sciences and the ΣΕΜΦΕ department of the Athens Polytechnic University. The courses are a prerequisite to continue for a Ph.D. degree in the above scientific fields.









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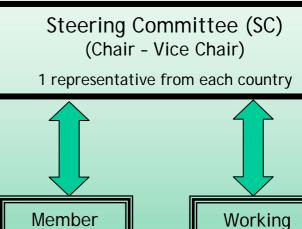
member institutions



UPB, Bucharest
NIPNE, Bucharest
University of Zagreb
IRB, Zagreb
PMF, Univ. of Novi Sad
VINCA, Belgrade
University of Sofia
INRNE, Sofia
University of Istanbul
NCSR "Demokritos"

+ 2 new applicants from Greece: NTUA, AUTH

SEENet structure



(MC)
all member institutions

Council

Working Groups (WG) Scientists

assigned by MC and SC.
Grouped according to NuPECC's scheme



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Memorandum of Understanding (MoU)

Preamble

- A group of Institutes and Departments from Research Centers and Universities, belonging to the countries from South East Europe (SEE) geographical area, has agreed to collaborate in the field of Nuclear Science and Technology.
- . The research field on Nuclear Science and Technology is a very active one within European Science and has a significant impact on society, through fundamental knowledge and numerous applications, as well as through excellence training.
- · The frontline research in Nuclear Science and Technology relies on large research Infrastructures, which serve the international user community.
- In the SEE countries there are in operation or are foreseen to become soon in operation nuclear physics facilities fostering guite competitive research programs, complementary to those underway at the European Large Scale Facilities. It is our belief that the research at these facilities is worth to be sustained, having strong influence also in attracting young people to the field of Nuclear Science and Technology.

The purpose of this memorandum is to establish a formal frame for the collaboration between the parties listed in Annex A, in planning developing and supporting common research projects in the field of Nuclear Science Technology.

Article 2: Purpose of the SEENet

- 2.1 To create a users network of SEE groups having or intending to have research activities in the SEE nuclear physics installations as well as in the existing European Large Scale Facilities (ELSF).
- 2.2 To perform mapping studies in SEE in the field of Nuclear Science and Technology according to the guidelines of NuPECC and other European organizations.
- 2.3 To promote independent research activities at the nuclear physics facilities located in SEE as well as research programs that are complementary to those from the ELSF.
- 2.4 To enhance collaboration between nuclear physics research groups in SEE as well as joint projects of the SEENet members with other European research groups.
- 2.5 To facilitate training in Nuclear Science and Technology for graduate students and young scientists through access to SEENet member laboratories and ELSF.
- 2.6 To facilitate the access of its members to the funding instruments of the European Commission in the sixth Framework Program.
- 2.7 To enhance the experimental and computational infrastructure in the SEENet institutions in order to handle large volumes of data and large scale model calculations.
- 2.8 To enhance the interaction of the involved scientific groups by organizing workshops, conferences and schools in Nuclear Science and Technology.

Typical problems arising in the "Balkans"

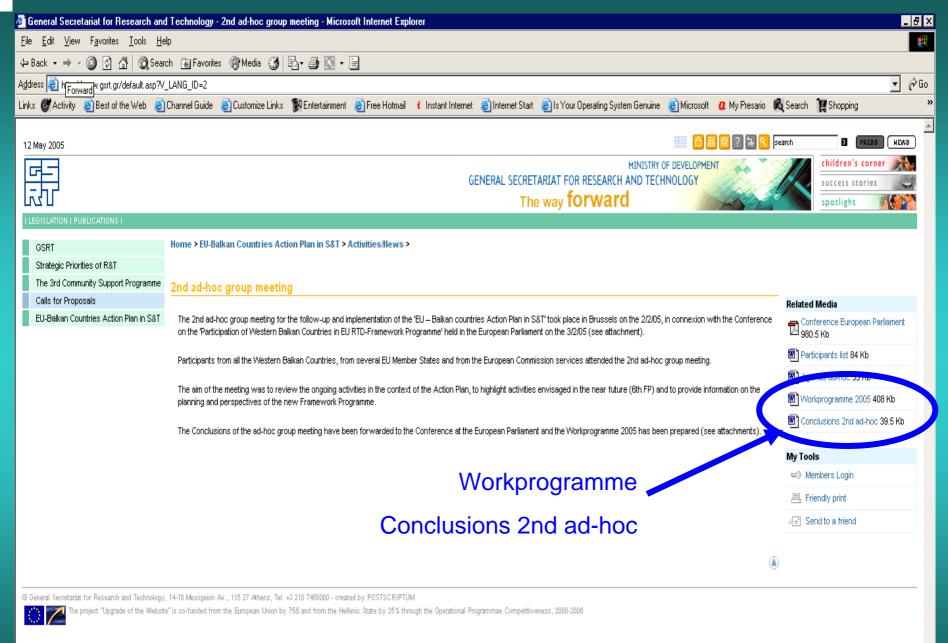
- 1. Decaying infrastructures (with almost "zero" state funding)
 - 2. Non-existing state-of-the art instrumentation
 - 3. Limited training and mobility programs
 - 4. "Non-optimized" human resources
 - 5. Non-optimized EC competitive programs
 - 6. Brain drain
- 7. Missing interest for innovation by the almost non-existing industrial sector

Some possible measures independent of scientific discipline

- 1. Upgrade of existing infrastructures to be able to be competitive in "West-Europe"
- 2. Support of regional network activities to optimize human resources
- 3. Establish regional training and mobility programs to enhance scientific cooperation, promote "local" research and limit brain-drain
- 4. Tax measures for supporting research-sponsoring by the industry
 - 5. Create a regional "large-scale" research infrastructure

Future Actions

- 1. Contribute to the effort of EWON within EURONS
- 2. Interact with European and National science-policy centers
 - 3. Prepare a "business plan" for common activities



http://www.gsrt.gr/default.asp?V_LANG_ID=2 (switch to english!)



SEENet: The South-East European nuclear physics NETwork URL: http://www.inp.demokritos.gr/SEENet

The South-East European nuclear physics NETwork (SEENet) is initiated by a group of 10 Research Centers and Universities from 6 South-East European (SEE) countries (Bulgaria, Croatia, Greece, Romania, Serbia and Montenegro, Turkey). SEENet aims at contributing to the scientific and technological development of SEE countries by a) enhancing collaboration between nuclear physicists in South-East Europe, b) creating a users network having or intending to have research activities in the existing SEE research installations, c) acting as an access-link to large scale European facilities, d) performing mapping studies in the field of nuclear science, and e) working towards the establishment of a large scale SEE Accelerator Centre for Interdisciplinary Research that will provide to SEE researchers a state-of-the art scientific environment for innovative research and technological applications. SEENet has an open structure; new members are welcome to join by providing to its Member Council an official application signed by the authorized person representing the applicant Institution.

Ongoing activities:

A Memorandum of Understanding has been signed by the SEENet member-institutions on December 3, 2002 in Istanbul, Turkey. Three collaboration meeting have already been organized in Sofia (Sept. 2002), Istanbul (Dec. 2002) and Novi Sad (May 2003). The next meeting will be held in Bucharest on May 2005. SEENet has been incorporated in the large EURONS Network that has been funded by the EC within the Integrated Infrastructure Initiative (I3) action of FP6.

Future plans:

SEENet plans to appoint working groups in order to perform mapping studies aiming at a) studying problems of scientific research in the SEE countries b) optimising the human resources in the SEE area, c) providing to the EC a strategy-report for actions enhancing the integration of the existing SEE scientific poles into the large European Research Area. SEENet intends to co-organize summer schools, workshops and conferences in its member countries to strengthen the interaction between the SEE research groups.