

**IX Summer School  
“Achievements and Applications  
of Contemporary Informatics,  
Mathematics and Physics ”  
(AACIMP – 2014)**

**August 3—16, 2014, Kyiv (Ukraine)**

**<http://summerschool.ssa.org.ua>**



Summer School “Achievements and applications of contemporary informatics, mathematics and physics”(AACIMP-2014) is an unique scientific-educational project, which has been successfully carried out for 9 years by the Student Science Association of National Technical University of Ukraine “Kyiv Polytechnic Institute”. The 9th Summer School will be held on August 3—16, 2014 in Kyiv (Ukraine). Participation in Summer School is a wonderful opportunity to broaden your horizons, find out more about the latest achievements of science, contemporary high technologies, and topical questions of scientific and technical progress of a society.

■ **Educational program.** The courses are presented in the form of lectures, seminars, workshops, discussions according to the topics of four areas (streams):

- **Operational Research.** This year participants of Operational Research (OR) stream will learn how different types of models (both hard and soft techniques) are used to improve decision-making in the face of uncertainty in real problems of business, governments or society. OR stream claims to be interdisciplinary, considering a vast variety of scientific areas where its methods and techniques are often applicable. Supply chain management, humanitarian and commercial logistics, financial markets modeling and also soft OR methods and approaches will be presented in the program of this year.
- **Applied Computer Science.** This year stream will be structured in the following way: first we will cover data retrieval and storage techniques as a part of data manipulation phase, then we will look into some basic methods of statistical analysis, data mining and machine learning. Some lectures will be given on data visualisation and tools for data analysis. We will also study interesting real-world applications of above techniques: image processing, bioinformatics, social science, natural language processing etc. As the stream stands for ‘learning by doing’ principle, a number of practices for applying gained theoretical knowledge and training skills is planned.
- **Neuroscience.** The neuroscience stream will provide insight into a broad range of topics including dynamical principles of visual and auditory systems, rhythm generation, neuromechanics of movement control, neuron-computer interface in dynamic-clamp experiments, brain computer interfaces. We will use practical examples of applications of modeling and biosignal analysis for functional assessment of movement control mechanisms and dynamics of sensory systems. In general the goal of NS stream is to provide participants with the essential review of the contemporary computational neuroscience field and to give a practical introduction to the principles of analysis and simulation packages.
- **Energy.** This year Energy stream reappears in the program of the Summer School AACIMP focusing on low energy housing and particularly on new approaches and solutions to enhancing energy efficiency of buildings. We’ll provide the broad overview of existing challenges followed by the discussion of the wide-spread and emerging approaches to low energy building. The introductory lectures will be followed by the study of the particular technologies such as "smart buildings", “smart grid” and their components, efficient usage of solar energy, natural ventilation and integrated energy efficiency equipments, daylight systems, heating, ventilation and air conditioning; new materials and construction methods; and advanced simulation tools.

■ **Tutors** are the scientists from well-known universities of over the world and the leading specialists of world's largest companies. The participants of Summer School have the possibility to find out today what the rest of the world will know only tomorrow.

■ **Social events.** If you want to discover something new, gain unforgettable memories, meet new people and learn more about culture, history of Ukraine and ancient Kyiv – join Summer School. Your stay during AACIMP will be fascinating and unforgettable.



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■ **Registration.** To participate you have to fill in an application form on the website of AACIMP-2014 ([summerschool.ssa.org.ua](http://summerschool.ssa.org.ua)). The decision on your acceptance will be made by the Program Committee within a month from a date of your registration.

*Early registration – until May 1.*

*Late registration – until June 1.*

■ **Registration fee.** Registration fee includes the cost of educational and social programs, informational materials and souvenirs of Summer School.

The type of fee	Degree and exchange students currently studying at		International students	Professionals under 35
	KPI	Ukrainian universities		
<b>Early fee Until May 1, 2014</b>	100 EUR	180 EUR	350 EUR	500 EUR
<b>Late fee Until June 1, 2014</b>	120 EUR	210 EUR	420 EUR	

■ **Accommodation and Meals.** Participants of AACIMP-2014 may additionally order residence and meals for the time of Summer School on special terms suggested by the organizers.

*Accommodation fee (dormitory of NTUU “KPI”) – 130 EUR.*

*Meals fee (only lunch) – 65 EUR.*

*Meals fee (3 meals per day) – 140 EUR.*

■ **Contact information**



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**You can find all the details of registration, information about courses, terms  
of participation and payment on the AACIMP-2014 website:**

**<http://summerschool.ssa.org.ua>**