CALL FOR PARTICIPATION

10th Summer School "Achievements and Applications of Contemporary Informatics, Mathematics and Physics "

August 4—18, 2015, Kyiv (Ukraine)

Summer School "Achievements and Applications of Contemporary Informatics, Mathematics and Physics" (AACIMP-2015) is a unique scientific-educational project which has been hosted for 10 years by the Student Science Association of the National Technical University of Ukraine "Kyiv Polytechnic Institute". The 10th Summer School will be held on August 4—18, 2015 in Kyiv, Ukraine.

Educational program. Driven by the idea of making the educational program more practice-oriented, we have come up with a new format of the curriculum. In short, it will incorporate three following stages (or phases):

- During the first stage participants will attend introductory courses that will include, among others, statistical analysis, basic optimization methods, computer modeling etc. The students will be invited to take part in a poster session planned to be held at the end of this stage.
- The second stage will start with a project fair where students will join on the projects to work on till the end of the School. These projects will be based on real-life problems, proposed by representatives of cities, companies, organizations, citizens and researchers that will supervise and consult students during their work in the multidisciplinary teams. The projects will belong to one or several of the four disciplines ("streams"): Applied Computer Science, Computational Neuroscience, 3D Printing and Smart cities. During this phase the half of the time will be dedicated to more specific-topic oriented lectures, when the other half will be devoted to project group work. As for the courses, during this phase they are planned to be more practical and specific, determined by the sphere of each discipline.
- The third stage will be substantially dedicated to work on the projects. The participants will be provided with necessary tools to accomplish their projects. The project teams will present their results publicly at the end of the School. Besides, the students will be invited to attend several insightful lectures during the final phase.

The applicants of the Summer School are invited to select one of the mentioned streams during the registration: Applied Computer Science, Computational Neuroscience, 3D Printing and Smart Cities: Energy and Urban Analytics.

Lecturers are the scientists from well-known universities from all over the world and the leading specialists of the world's largest companies. The participants of the Summer School will be given the opportunity to find out today what the rest of the world will know only tomorrow.

Credits. The participants of the Summer School will gain 3 ECTS credits.

Applied Computer Science. ACS stream will be focused on Data Science and Data Analysis. In the modern world these fields are especially eminent due to the dramatically growing amount of data produced by the mankind. The ACS program will include classes on data retrieval, pre-processing and storage, data mining and machine learning techniques. The practical project topics will incorporate, among others, visual data analysis, natural language processing, social data analysis etc.

Computational Neuroscience. CNS stream will dive into the computational aspects of the field. The program will provide insight into a broad range of topics, including neuromechanics of movement control, dynamical neuron systems, neuroimaging, neuron-computer and brain-computer interfaces. The CNS stream program aims to provide participants with an introductory review of the contemporary computational neuroscience field and to give a practical introduction to the principles of analysis and simulation packages.

3D Printing. The participants of the 3D printing stream will study basic principles of 3D printing: working with CAD models, scanning objects and installing a 3D printer for multifunctional details and prototypes production. The classes will be supplemented with multidisciplinary examples of additive manufacturing applications. During the second and third phases of the School the participants will work on the cross-disciplinary projects in collaboration with students from Smart Cities and Applied Computer Science streams.

Smart Cities: Energy and Urban Analytics. Smart Cities stream focuses on sustainable urban development empowered with analytical methods, ICT tools and emerging technologies. The stream will start with brief introduction into basics of urbanistics, challenges of contemporary cities and 'smart'-related concepts and approaches, i.e. internet of things and big data induced intelligence; urban system modelling, operations research and business analytics; user-centric city services and strategic planning. Further the program will proceed to cases and applications for several key areas of smart cities: energy, mobility, security, planning and governance, as well as tools and methods to complete projects, which will be a core activity of the stream.

Poster session. The participants of the Summer School have an opportunity to participate in the poster session and present the results of their research. Topics are not limited to the participant stream area yet should remain within general AACIMP scope. Accepted Summer School participants are invited to submit an abstract till July 1. The participants of the poster session will gain additional 3 ECTS credits.

Social events. AACIMP social program gives the opportunity to feel a genuine Ukrainian spirit and discover Ukrainian traditions, taste delicious national dishes and feast the eyes on Ukrainian costumes. A wide variety of social activities, including, among others, exciting quests, Culture fair, Movie night and guided city tours along the city center of Kyiv, a vibrant mix of the historic and modern, will make a two-week stay in the Ukrainian capital unforgettable.

Registration. In order to participate please fill in the application form on the AACIMP website (http://summerschool.ssa.org.ua/apply). The decision on acceptance is made by the Program Committee and will be communicated to applicants via e--mail within a month from a date of the registration.

Early registration – until May 1, 2015
Late registration – until June 1, 2015

Registration fee. Registration fee includes the cost of educational and social programs and informational materials.

	NTUU "KPI"		**UA citizens**		**non-UA citizens**	
	UAH				EUR	
	Early	*Late*	*Early*	*Late*	*Early*	*Late*
Undergraduate / Masters students	1300	1600	1500	1800	320	390
PhD students	1700	2000	1900	2200	350	420
Professionals	5000				500	

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-2015 website:
http://summerschool.ssa.org.ua

Summer School AACIMP-2015 in social networks:
Facebook - http://www.facebook.com/aacimp
Twitter - http://twitter.com/aacimp
Instagram - https://instagram.com/aacimp/