

About the College for Advanced Studies

There is a unique form of organization in Hungary. It has no conventional English name, but the most common translations are: College for Advanced Studies, or Vocational College. These Colleges are important and recognized parts of higher education system in Hungary. All activities and work that can be connected to these organizations are done by their members in a self-motivated, non profit environment. All the colleges are based on the four pillars: community, autonomy, professionalism and social sensitivity. Main lines of work of these organizations are education and talent development. The foundation of the Colleges is also based on the pillars mentioned above, so they happen on student initiatives. However the organization is usually tied to a faculty of a university, it still have to keep it's autonomy. Besides education, another important mission is to help members achieve a higher level in social sensitivity and to help them become well informed in many other areas besides their own expertise as well. Number of the membership is really varied. We know working examples with only a handful of people and there are Colleges with up to 200 active members. Although structure, size and area of expertise are different, we can tell that all the organizations share the common pillars and a mission: to raise and educate future's intellectuals.

As for the history of Vocational Colleges: the first main wave started in the end of 1970-ies or the beginning of the 1980-ies. But the very first organizations were founded in the end of the 19th century. The missions and the basic pillars were in place even then, since a significant part of today's intellectuals were members of these institutes. The fact that these Colleges played dominant parts in the debates around Hungary's political transitions is a great example of social responsibility. The movement became more and more popular, and has many old and new participant Colleges ever since.

Active membership of the Colleges consists of university students with active student status. Students, who want to be admitted members, have to accomplish certain criteria during a recruitment process. These criteria can be written tests, interviews or even practical exams on the applicant's knowledge. The exact rules have to be written in the College's Code of Operational Rules, but all the organizations are open, so basically anyone with active student status can apply. Considering the movements extensive past, most Colleges have remarkable Alumni networks. In case of older organizations it's commonplace for the members to live in one dormitory building dedicated to only for a given College.

Regarding the work: All work done in the organizations is self-motivated. Creative professional work is realized in conditions created and maintained by the members. The College's main goal is to provide extracurricular opportunities to complete the education students can have at university. To achieve that goal, organizations need to provide two basic elements. The first is sufficient technical and financial background; the second is a team of instructors and teachers both outstanding and qualified. Although colleges mainly concentrate on training and developing their own members, also their providing opportunities open for all students is also common. This is mutually beneficial because participants have the chance to learn something, and Colleges can find excellent future members.

Of course life in Vocational Colleges is not only about profession. Team building and various free time activities are equally important. Different cultural, sporting and other community programs grant that everyone find fun and relaxation. And all these activities can be dominant

later on, since members gain a lot more than just learning experience. They can start their networking in the College, they can make new friends, and mainly they can have fun, while learning and doing the job of their chosen professions.

About the Simonyi

Simonyi Károly College for Advanced Studies is a student organization of the Faculty of Electric Engineering and Informatics at the Technical and Economical University of Budapest. With more than 200 members it's one of the biggest Vocational Colleges in Hungary. The organization's base of operation is Schönherz Zoltán Dormitory, which is also the center for the faculty's other student activities. A variety of events are linked to Simonyi. We organize presentations – both with speakers who are representatives of our industrial partners, or from within the College – regular courses through the whole semester, exhibitions, and also our regular programs like Szakmai Est, or different competitions. Although Simonyi's most important mission is to provide extra opportunities for learning and to launch programs that help professional and personal development of talented students. Our educational work has two main pillars. One of them is a range of courses that are open for any university students. The other one is based on continuous training and development of our members. We also get a lot of help from our Alumni and from our industrial partners with this line of work. The second pillar materializes through a system of mentors where the older



active members are responsible for guiding the personal and professional development of younger active members. In 2009 the Simonyi Károly College for Advanced Studies was awarded with Junior Prima Prize for “the high quality educational work and human principals” as recognition of the work it did. Our professional work has strong ties to the professions of electrical engineering and informatics. Members with similar interests can work together in groups where

they have the chance to conduct further research and learn more about their specified lines of interests. In our College there are 8 groups:

AC Studio&Live: The members can familiarize themselves with everything related to audio techniques. As the name of the group shows, they are experts in both studio techniques and live sound amplification systems. In their studio they have access to a soundproof recording area where they also run an acoustics laboratory. Many amateur start-up bands have had their first album recorded in that particular studio. Live sound systems are also an important part of their work, because of the high number of requests. They are responsible for the audio systems of countless university and faculty events, concerts and parties, but they play an equally important role in the Conference's success.



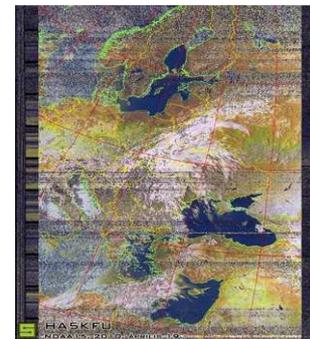


Budavári Schönherz Studio (BSS): It's the longest existing group of the College with its 1962 foundation. The members can take their choice from a wide variety of things starting with movie making, through TV and Radio broadcasting or even hosting the programs they produce. In a constantly developing studio, members have the chance to use professional TV cameras, sit in the control room where all the signals are connected and the broadcast material is

created, they can be wherever they would like to with the help of bluebox technology, or they can use a powerful Mac to do the post production work on a film. BSS broadcasts a live internet feed weekly, with small films and interviews regarding public matters, and student life at the campus. A smaller group within the BSS called Radio Positive has access to a small radio studio. They operate an online radio 24/7 – it can be reached at radio.sch.bme.hu – and if you are up for it you can even be the host of their next show.

Designer Group: This particular group was founded this year, therefore they are the youngest one in the College. Members are mostly involved in graphical designing. Their main line of work is webdesign: structural and graphical design, usability and sitebuilding. The group is also familiar with other types of creative work like poster designs.

HA5KFU: The common denominator in this unit is radio technology. The group's name comes from their radio amateur call signal. Members nowadays rather work in the field of software based radio technology, but in their lab we can find all the good old analogue machines. The group has high performance antennas on the top of the dorm. With the help of these equipments in the last semester they even managed to intercept a satellite image. The members are often up for their favorite hobby in their free time that involves outdoor hiking and hand radios. During these hikes they try to contact other participants and exchange call signals.



Dormitory IT Group (KSZK): Competence of this group involves everything related to IT. They manage complex IT systems and networks such as the dormitory's IT network with a tremendous amount of services and with more than 1000 end devices. They have smaller groups concentrating on professional web- or game development, but members have the chance to specialize in IT security as well. The KSZK in keywords: VMware, Linux, Microsoft, Cisco, PHP, DirectX, C/C++, Security.



LEGO group: Members of this group are working on different territories of robotics. The unit got this particular name because the new members start to learn the basics with Lego's NXT kits. After they get familiar with the basics, the group offers the possibility of working with different types of embedded systems, microcontrollers or even PLC systems for those who wish to have a more complex

knowledge. The members work on various problems or test their innovative ideas in a project based system. They are also very active in different competitions and their work is usually recognized with prizes or prominent rankings.

Schönherz Electronics Workshop (SEM):

They are the College's very own DIY group, and they are involved in many fields of electronics. Members diagnose faulty electronic equipments, design integrated circuits, program microcontrollers or build various types of electronic devices. One of the biggest projects is the Matrix. During this annual program one side of the dormitory building turns into a huge display. For the first time this year the project became colorful, and each windows between the 5th and 18th stories acted as one dot in the display. If you would like to see the 28.000 LEDs flash simultaneously, follow the link below.



New Matrix: <http://www.youtube.com/watch?v=tn7cQllHVKI&feature=related>

Old Matrix: <http://www.youtube.com/watch?v=hFqnDjyDI9o>

Kir-Dev: Members of this group are developing, managing and operating complex web-based applications. They made many solutions used by most of the faculty students, like our networking site, or VIR NEWS, the faculty's online news portal.

Besides the technological work, members also have the chance to develop their management skills. One can imagine the Simonyi as an enterprise with 200 employees and 300.000 € worth technical background. The conditions are similar for us as they are for a venture in a competing economy. Leaders of the College come across with problems like: financing, motivation, recruiting, knowledge management, organizational development or even branding on a daily basis. An organization with this size needs significant resources on areas like HR, PR, External Affairs or Finances. In Simonyi we have management groups dealing with problems and every day tasks of these areas. The HR Group is responsible for the recruitment of the College and also for the team building events. Members of the PR Group do every marketing related work, and they are in charge of our weekly newsletter and the press coverage. The Financial Group is responsible for fund raising, and also for oversight of every financial transaction in Simonyi. Members of the External Affairs Group keep in contact with other organizations and our industry and university partners. Our last management group is responsible for the organization of all courses linked to the Simonyi, and afterwards supplying and controlling all the resources necessary for to operate them. The members of these management groups are also responsible for the organization of all our events that cannot be directly linked to any of our professional groups. These events are for example: our recruitment days, or the annual Szakmai Est that is a roundtable discussion of current topics that interest the students of our university, or even the Conference itself that is the most serious event in the life of our College. Our goal with these lectures and programs is to educate, and to create an open minded approach for the engineers of our future.

About the conference

The Simonyi Conference is the biggest - student organized - professional event of both the Vocational College and the Faculty of Electric Engineering and Informatics as well. The Simonyi College organizes the event once every autumn– for the 8th times this year. In the past eight years the conference got widely known and in the last few years, it's visitor numbers reached 900.

Simonyi 
Konferencia

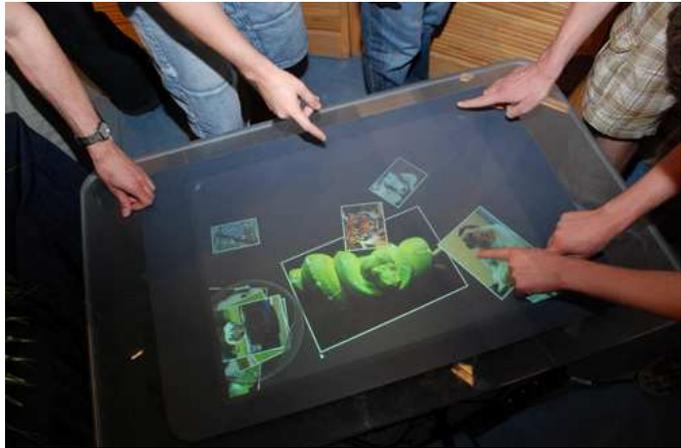
The event concentrates on the fields of Electrical Engineering and Informatics, but we have a few borderline presentations every year, featuring medical science, mathematics or even sociology. The conference is held at Simonyi's home university campus. In two auditoriums 14-16 presentations take place in one afternoon. Based on the success of previous year's English lectures, for the first time in 2011 the conference becomes completely bilingual, with one English speaking auditorium and a Hungarian speaking one. We wish to help the Conference achieve an even higher standard with inviting well respected experts from abroad. We would also like to encourage the foreigners studying at our university or foreigners willing to travel here to be part of the Simonyi experience.



Every year, we have speakers presenting cutting edge technology, latest products and the news of industry. Every lecture takes 20-25 minutes with a 5 minute question block at the end. The goal of these presentations is rather to raise interest in participants towards different fields, and to widen their horizons. Although it's also important to clarify that the professionalism of these lectures represents a high standard. The original purpose of the conference on one hand is to create an opportunity for members of the College to present their researches or areas of expertise. On the other hand it provides an insight to the news of the informatics and electrical engineering professionals with the help of our industry partners and university professors.

Let this next paragraph provide a reference about the most successful lectures and speakers of the last few years. Every time a serious interest is raised by the topics of movie

making and multimedia. We are proud to tell, that last year we had a presentation by no less than the technical Oscar prize winner Colorfront company, and we also had a lecture with Marcell Nagy who was part of the Post-Production crew in James Cameron's Avatar. Another favorite of last year's presentations was Péter Csermely's about his research on the different uses of networks and network based approach. From the energy industry the most popular presentation was probably the one about the expansion of Hungary's Nuclear Power Plant (the one found in Paks) We also had a great presentation by Bosch about the future of car electronics and another one featuring next generation vehicle to vehicle communication systems. Not long after it's release we had the chance to get familiar with the Microsoft Surface touch screen computer, and we also had a presentation about SSL and RFID hacking techniques. On the most popular lecture two years ago we had the chance to get a sneak peek to the background of all Google searches thanks to an engineer from Google's Zürich based office. In last year's English lectures we heard about the energy challenges of the 21st century, and we also gained insight to ESET's virus lab. If you follow the two links below, you can watch the recordings of those two presentations.



ESET: <http://simonyi.bme.hu/konferencia/nod-32-viruslabor>

Exxon: <http://simonyi.bme.hu/konferencia/21-szazad-energiakihivásai-energiafogyasztás-előrejelzés-2030-ig>

The Simonyi Conference became a well respected event providing insight to a broad spectrum of the IT and electrical engineering professions, giving useful and valuable knowledge to the visitors.

Until this year's event our press coverage was only internet based. Articles about the Conference were featured in 4-6 thematic news portals like: IT Cafe, or Hungarian Unix Portal, and in one of the national portals called Index.

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