



EDSF Scholarship Recipient Experiences the Forbidden City by Anastasiia Solodovnyk, Moscow State University

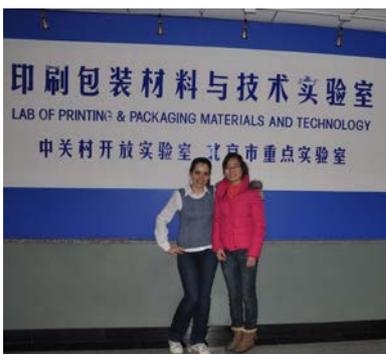
Anastasiia is studying Print Management and speaks Russian, German, English and is learning Chinese.

It's hard for me to predict the future of an entire industry, of course, but so-called digitalization cannot be ignored. Although I personally still feel strong appeal of freshly printed books, I never have a desire to carry a book around just in case I would want to read it. Electronic versions are way more convenient. In the past prosperous printing machinery companies announce themselves bankrupt every year, so I cannot see many potential job offers from there. I get annoyed though when people repeat that printing is moving towards its end. Industry is changing just

like any other in the period of vast and fast technological growth. James Cameron was forced to make his 'Titanic' in 3D cause 3D technology is just better in many ways, and I doubt he will make any movie in 2D after this. World has to change. Therefore, digital equipment and production will get only stronger in the upcoming years. Printed packaging has strong position these days too, and I expect it to keep that way at least for a couple of next decades. However, to me the opportunity to print electronics and sources of renewable energies (as solar cells) seem most interesting and promising IF our industry will be able to offer potentially efficient technologies. To my best knowledge, we are already very near that point. This can bring graphic arts industry to close cooperation with governmentally supported energy industries; consequently, industry would receive new money investments for its development. It can also make the society more aware of our technologies, their importance, and, of course, talented and bright people who work here. I can already imagine the times when our currently commonly used offset machines would be rebuild to meet the needs of renewable energies production just like flat-bed presses 20 years ago were rebuild into embossing presses for small printing shops.



With this kind of thoughts I have started doing my Master's research, and to be perfectly honest, I was only getting more convinced during my studies. This year receiving EDSf scholarship has allowed me to go abroad to do research internship in Beijing Institute of Graphic



Communications, China. This institution has the biggest plasma laboratory in the whole China, and their Professor Qiang Chen is one of the most famous professionals in his field. Right now he is doing research project in Harvard. My project lasted 4 months, and this is surely the time I will never regret or forget. Together with several Chinese Master students and under close supervision of Prof. Chen, we have developed inks with silver nanoparticles for ink-jet, printed them on various polymer substrates and treated printed layers by argon plasma under different conditions to etch the protector that created resistivity

and produce crystallized structure of silver on the surface. Conductivity checks showed good results that we are planning to report on the nearest conference 'Nanomaterials: Applications & Properties'. Aside from working in great laboratory environment I studied Chinese language and culture, volunteered in the orphanage and travelled as much as I could. I was surprised at how little I knew of China before, and how much we can learn from their way of life and work.

With my results from there I am continuing research on printed electronics in Moscow. My aim is to proceed next with PhD degree that would be devoted to technological process of solar cell printing. I believe the importance of these issues is growing, and it is a good way to apply my knowledge and skills. My career goals include becoming University Professor myself and leading research group.

Without support of EDSF I am not sure where I would be now and if I could have achieved many good results. It is very important to support young people and their education. This way they know they are occupied with something that is actually worth doing. I would strongly encourage anyone to help with scholarship funding to let young generation know that we need them with their fresh ideas and energetic drive.

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