

# Arta Cika

## DPhil candidate



DEPARTMENT OF  
**ENGINEERING  
SCIENCE**

### What inspired you to become an engineer?

I have been fascinated by science and engineering all my life. I always wanted to know how things worked and I am curious to find out what's inside everything. Moreover, math has always been my favourite subject, and my passion for problem-solving grew up with me. Also, both my parents are civil engineers. Me and my sister used to go to construction sites where we saw motors, engines, cement and we were thrilled to see the final building completed. Last but not least, I come from a small town in North of Albania, and I wanted to pursue a career which would have allowed me to live anywhere, and I found out that engineering has excellent and diverse job opportunities around the world.

### How did you get started in engineering?

I attended a Technical High School in Electronics where I had the chance to build my first electronic circuits and write my first lines of code. After that, I decided to graduate in Information Technology. From Albania, I moved to Italy for my Undergraduate studies. Then I moved to France for a Master degree and finally to the UK, where I'm currently attending a DPhil.



### What attributes and skills help you in your role?

- Perseverance, creativity, and innovation.
- Thinking out of the box and willing to push boundaries.
  - Not afraid of taking risks and being independent.
- Notable organisational skills and being able to work in a team.

### What is your research area?

Modeling and analysis of the dynamics in the spatiotemporal networks. Every real system shows spatiotemporal characteristics, and we use entropy-based methods to better understand the properties of these complex networks, which are composed of a large number of nodes embedded in space and are dynamically evolving over time.

### What has been your highest achievement to date?

This April, I submitted my second paper at the IEEE Global Communications Conference (GLOBECOM). It is one of the most important conferences in my field, and it will allow me to present my work to some of the brightest minds in this area of research.

*Entropy Rate of Time-Varying Wireless Networks*  
Arta Cika, Mihai-Alin Badiu, Justin P. Coon, Shahriar Etemadi Tajbakhsh

### Have you experienced any gender-related challenges?

Unfortunately, I have. The current situation is much better than years ago, but there is still a lot to be done. I have overcome these problems by working hard, believing in myself and ignoring negative people.

Finally, I always try to be surrounded by positive and inspiring people who want to make changes in the world.

### Why should young women choose engineering as a career?

Being an engineer is fun and exciting, and a career in engineering can offer you a chance to be creative and inventive. I would recommend this degree to anyone who likes combining creativity with problem-solving.

Engineering is the field that has the most significant impact on the problems of our world, whether it is to let people connect to each other, creating clean energy or curing cancer. As engineers, we are constantly changing our environment with inventions and solutions that affect everyone's lives.

In my specific field, it's easy to see the impact that wireless networks had in our life. Although most of us feel like we couldn't live without our mobile phones, they've not been in existence for very long. In fact, mobile phones have only been around for the last 20 years.

That fast-pacing innovation of technology never stops amazing me, and it enhances my innate curiosity.

***“The most satisfactory part of my job is to see my ideas come to life.”***

### What is the best thing about your job?

Research is a challenging and complex task. Learning can sometimes be a tough process, with its ups and downs. After all the hard work, the most satisfactory part of my job is to see my ideas come to life.

It's exciting to see how your thoughts can grab the attention of the scientific community, discussing them with the most brilliant minds in your field at the most prestigious conferences in the world.

### What is your top tip for girls considering Engineering?

Firstly, don't consider engineering as a 'man's profession' and don't miss an opportunity because it's not 'traditional'.

Second, if you are a practical person and show an attitude for engineering, follow it. Nothing should stop you from achieving your goals.

Third, push yourself out of your comfort zone, be confident and put yourself forward for promotion.

Finally, most importantly, be happy, be inspired and try to inspire.

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