

# IMPLEMENTATION OF INTERNATIONAL COOPERATION THROUGH PARTICIPATION IN “TECHWOMEN”, AN EXCHANGE PROGRAM IN THE US

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## Abstract

**Purpose** – the main purpose of the paper is to give scientists, engineers, and students the benefit of the experience of participants in the exchange program.

**Methodology** - essays and blogs’ writing guidelines developed by the team of TechWomen 2015 are cited in this article.

**Originality/value** – the originality of the work is determined by the fact that this is the first opportunity for Kazakhstan women to participate in the program.

**Findings** - Kazakhstan participants of TechWomen 2015 were afforded a unique opportunity to be professionally and culturally mentored by women from leading companies in the Silicon Valley. A primary objective is the professional growth of the participants, and in parallel the participants return to the Republic of Kazakhstan to lead change for other women in their communities.

**Keywords** -TechWomen, exchange program, mentorship, STEM careers.

## Introduction

What is TechWomen? TechWomen [1] is a professional mentorship and exchange program developed in 2010. In 2015, the program was expanded to include women from Turkmenistan, Tajikistan, Kazakhstan, Uzbekistan and Kyrgyzstan. TechWomen is an initiative of the U.S. Department of State’s Bureau of Educational and Cultural Affairs. TechWomen empowers, connects, and supports the next generation of women leaders in science, technology, engineering, and mathematics (STEM) from Africa, Central Asia, and the Middle East by providing them the access and opportunity needed to advance their careers, pursue their dreams, and inspire women and girls in their home communities. Through mentorship and exchange, TechWomen strengthens participants’ professional capacity, increases mutual understanding between key networks of professionals, and expands girls’ interest in STEM careers by exposing them *to female role models*.

## Results and discussion

In 2015, TechWomen program brought together 99 participants from 19 countries, of which 4 participants represented the Republic of Kazakhstan. Each woman received professional and cultural mentorship, while she developed her social project aimed at improving life in her country. TechWomen 2015 gave participants

an opportunity to get internship at the leading companies of the Silicon Valley such as: Google, Yahoo, Twitter, LinkedIn, Instagram, Mozilla, Juniper Networks and Tesla Motors. The TechWomen 2015 provided professional and cultural leadership and action plans, as well as educational and start-up workshops. In addition, meetings were organized with famous business leaders like Elizabeth Holmes from Theranos and employees from the US Department of State's Bureau of Education and Cultural Affairs in Washington, DC including Sheila Casey. All participants developed their social projects to be implemented upon their return to their own countries. The women from Kazakhstan developed an action aimed to help orphans get a higher education.

One of Kazakhstan's participants, Darya Alontseva, was paired for a mentorship at [Juniper Networks](#) [2] with Saura Naim (fig.1). The pairing of these two women exemplifies the power of TechWomen. Darya is a professor of Physics at East-Kazakhstan State Technical University in Ust-Kamenogorsk. Saura is a Senior Director at Juniper Networks, the Head of the Business Operations for Juniper's Development and Innovation Organization. Despite very different backgrounds, the program was able to pair them to leverage skills and networks to share, learn and grow.



Figure 1 - Saura Naim (left) and Darya Alontseva (right) at the Kick-off Event at Juniper.

Darya focused her time at Juniper Networks learning more about organizing work for a multinational team, including program management of her research team globally, getting a patent in the United States, seeking information about the scientific developments of other research groups, enhancing communication methodologies and gaining a better understanding of how to get various companies interested in supporting her research.

Darya learned much more than she could have imagined. She worked in accordance with a specially designed, personal schedule which addressed her goals and aspirations for professional development. Some of the needs were fulfilled on the Juniper campus, others through Saura's broader network in the Silicon Valley. As part of Darya's mentoring plan, she participated in workshops led by Juniper's legal team on patents, licenses and the patent process in Juniper. Darya attended multiple sessions of "[Toastmasters](#)" [3], developed public speaking skills. Darya visited the Juniper labs, as well as having a full day excursion to Berkeley [4] to visit the labs there in support of her understanding new research and development methodologies and technologies. In addition, Darya got a tremendous new experience visiting "[GoDaddy](#)" [5], whose facilities are just down the street from Juniper's Sunnyvale offices, which afforded her new knowledge in creating websites and domains. Darya was also exposed to culture in Silicon Valley and neighboring San Francisco through trips, excursions and even a visit to Saura's home and family.

All mentees at Juniper had a unique opportunity in which they were invited as guests of Juniper Networks to attend the [Grace Hopper Celebration](#) [6] in Houston (fig.2). More than 12 thousand women from around the world convened there, and the Juniper mentees and mentors enjoyed the event and experience together. Inspiring Grace Hopper Celebration speakers (among them Telly Whitney, Susan Wojcicki, Chelsea Clinton) and honorees made extremely useful presentations with light talks. There were also workshops on careers, in software engineering, security/ privacy, plus an exposure to a huge exhibition. All attendees had a chance to ask questions and get answers from leading professionals, and to expand both their professional and social networks.



Figure 2 - Grace Hopper Celebration

One last highlight to share is how Juniper's entire executive staff made the personal commitment to engage and meet with all of the mentees from TechWomen (fig.3). These meetings were particularly enlightening and allowed the mentees a broad perspective from all leadership aspects of the organization. Juniper really went out of its way, to make these women feel included and valued, and in Darya's words to feel like "members of the family" [7].



Figure 3 - From left to right: Josephine Kamanthe (2013 fellow), Veronique Umutesi, Alia Ishmukhamedova, Rami Rahim – Chief Executive Officer, Juniper Networks, Darya Alontseva, Dalel Mansour, Nansy Cheseto

Several months later the tables were turned, and Saura Naim joined the first TechWomen delegation to Kazakhstan. Saura, Darya and the other mentors and mentees joined forces to reach out to 800 girls and women in Kazakhstan. They traveled from Almaty to Astana, from orphanages to Kazakh-Turkish Lyceum for girls to Universities, with a message of empowerment and excitement about being women in STEM careers. This TechWomen delegation shared their successes and challenges in the format of panels, workshops and informal social networking events. For both Saura and Darya, the highlight of that trip was when Saura landed in Ust-Kamenogorsk and joined Darya at her University (Fig.4) to share stories from Juniper and TechWomen with Darya's colleagues and students (Fig. 5). Darya, in turn had the chance to share her world, her labs, her community, its celebration of Nauryz (Fig.4) and her home, thereby affording Saura a taste of Kazakhstan hospitality and culture.

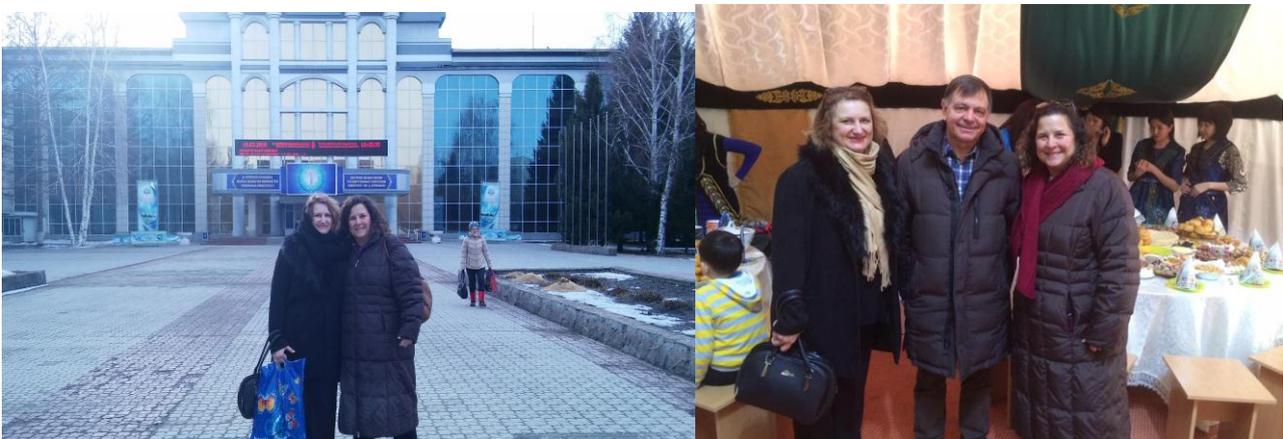


Figure 4 – Darya and Saura in front of EKSTU, the Nauryz celebration - inside the yurt with the Vice-Rector of Science and International Cooperation of EKSTU Oleg D. Gavrilenko

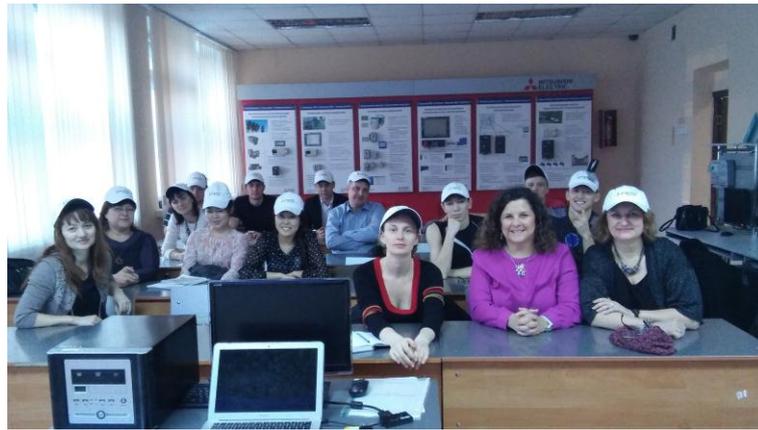


Figure 5 –The meeting with students and lecturers in EKSTU, all wearing Juniper Networks caps.

### **Conclusion**

For both Darya and Saura this was a journey where being a mentor, a mentee, a guest and host in each other's countries, gave each of them exposure and opportunity that they could not have attained had they not engaged in the TechWomen program. This experience bridged skills across the fields of science and technology, exposing two women to new countries, new cultures and sharing new ways of doing business, and ultimately stimulated a new network that connected across continents. It was an empowering experience for both, and one that will influence them in their careers and their lives as they continue to work in very different places to help change the world. They will help make the world better and more accessible for women and girls in STEM, each starting at home in their respective countries and influencing way beyond those boundaries. *Thank you TechWomen for the pairing and the sponsorship!*

### **Acknowledgment**

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### **References**

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