Barbora Buhnova — Curriculum Vitae

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Short Bio

Barbora Buhnova is an Associate Professor and Vice-Dean at Masaryk University, Faculty of Informatics (FI MU) in Brno, Czech Republic. Following her research career in Germany and Australia, she now leads multiple research teams at FI MU (software architecture) and Czech CyberCrime Centre of Excellence C4e (critical infrastructures). She is the Steering Committee member (and former chair) of the IEEE International Conference on Software Architecture (ICSA) and has been involved in organization of numerous leading conferences (e.g. in OC of ICSE, ESEC-FSE, ASE and other 10+ conferences, and in 70+ PCs). She acts as a reviewer and editor in multiple journals (e.g. IEEE TSE, Springer EMSE, Elsevier JSS), and is a member of the IEEE TSE Review Board. She is an active advocate of industry-academia cooperation, being the chair of the Association of Industrial Partners at FI MU (with 30+ companies). Next to her academic activities, she is passionate about tech education among women and children, being a Co-Founding and Governing Board member of Czechitas, a non-profit organisation aiming at making IT skills more accessible to girls and women (with 30,000+ graduates), and she is a member of multiple initiatives engaging more women in computing, reaching across the entire Europe.

This document highlights her activities to encourage and support girls and women to join software engineering education and career, towards improving Inclusion&Diversity (I&D). For her academic CV, see https://www.fi.muni.cz/~buhnova/research/buhnova-cv.pdf.

Opening Statement

In the Czech Republic, only 10% of ICT professionals are women, which puts the country as the very last in women representation in computing in Europe. In 2014, I have joined efforts that led to starting a non-profit organization called Czechitas, which has over time become a movement that attracted a strong community of tech professionals, companies and volunteers, and gave rise to a portfolio of female-tailored courses in various areas of tech, such as programming, web development, mobile app development, data science, testing, and many others.

Thanks to the success of our education activities, consisting of hundreds of courses a year (each receiving multiple times more registrations than its capacity), we have become recognized as the leading platform in the Czech Republic actively addressing gender diversity in computing. We have also been recognized abroad with numerous European as well as overseas awards (e.g. winning the Equals in Tech 2022 global award in the Skills category, the EU Social Economy Awards 2021 in the Digitalization & Skills category, becoming the first organization from Central Europe to be awarded SXSW Community Service Award in 2017, or being awarded the European Citizens' Prize 2016 by the European Parliament).

We have influenced over 30,000 women who graduated from our courses to use their new tech skills to advance their careers. Besides students, our community includes over 1,000 volunteers (tech professionals), over 100 partner companies, the core team of 80+ employees distributed across the Czech Republic, and large social media audience.

In 2019, I have moved from the executive role in Czechitas to the Co-Founding and Governing Board, focusing on selected diversity products and mentoring senior management in the organization. Since then, I engage in individual mentoring of women in tech, public speaking on the topic of women in tech nationally and internationally, design and teaching of diversity

trainings to managers in tech companies, advocating for more women in research in software engineering, taking leading roles in international networks supporting women in tech, and organizing relevant conferences (in 2021 I served as the General Chair of the 8th ACM Celebration of Women in Computing: womENcourage 2021), which are summarized below.

ROLES IN I&D LEADERSHIP

Co-Founding and Governing Board member of Czechitas
Non-profit organisation aiming at making IT skills more accessible to girls and women. 30,000+ graduates, 1,000 volunteers, 100+ companies, 80+ employees in 10 cities.
From **February 2015** to **present**

EUGAIN Vice-Chair – nominated and elected
European Network For Gender Balance in Informatics (EUGAIN, https://eugain.eu/) Covers representatives of 39 countries, funded within the COST programme, which enables researchers to set up interdisciplinary research networks in Europe and beyond.
From **February 2021** to **present**

EUGAIN Leader of WG1: From School to University – nominated and elected
European Network For Gender Balance in Informatics (EUGAIN, https://eugain.eu/) WG1: From School to University objective to design a new set of measures to promote the participation of more female students in informatics higher education.
From **October 2020** to **February 2021**

Women in Informatics Research and Education (WIRE) member
Informatics Europe working group Women in Informatics Research and Education
From **January 2020** to **present**

Mentor for NKC – Gender & Science
Mentor in the Mentoring programme of the NKC – Gender & Science
From **January 2015** to **December 2019**

SELECTED DIVERSITY PROJECTS

I have a leading role in the following diversity projects related to women in SW engineering.

Czechitas Courses for Girls and Women – design, teaching, supervision
Since 2014 I have participated on the design and teaching of the portfolio of Czechitas courses for girls and women, which to date counts over 1,500 delivered courses (from one-day to three-month long courses).
From **2014** to **present**

Czechitas Summer School for High-School Girls – co-organizer
Since 2016 I am organizing the Czechitas Summer School for High-School Girls in Brno, which is a week-long programme engaging girls in computing, hosted at Faculty of Informatics, Masaryk University (FI MU).
From **2016** to **present**

Czechitas Thesis Award – initiator, co-organizer
In 2016 I have initiated the concept of the Czechitas Thesis Award (being awarded since 2017 till now every year), giving visibility to the best undergraduate theses by girls in computing across the Czech Republic.
From **2017** to **present**

Czechitas Diversity Training Program – ideation, design, teaching
In 2020 I have developed and taught the Czechitas Diversity Training Program, which has so far been piloted in four large international tech companies (including a Fortune 500 company).
From **2020** to **present**

Award Committee of the Minerva Informatics Equality Award – member
In 2021 I was a member of the Award Committee of the Minerva Informatics Equality Award, which recognises best practices in Departments or Faculties of European Universities and Research Labs that encourage and support the careers of women in Informatics research and education.
In **2021**

ORGANIZATION OF I&D CONFERENCES

WIRE-EUGAIN 2022 workshop on "Workforce for the Digital Transformation – Attracting and Retaining Female Students from Bachelor and Master to PhD" – in organizing team
Involved in organization and moderating of WIRE-EUGAIN 2022 workshop collocated with ECSS 2022
In **October 2022**

WIRE-EUGAIN 2021 workshop on "Sustainability and Gender Balance – How to Retain Girls and Women in Computer Science" – in organizing team
Involved in organization and moderating of WIRE-EUGAIN 2021 workshop collocated with ECSS 2021
In **October 2021**

ACM Celebration of Women in Computing: womENcourage'21 – General Chair
General chair of womENcourage 2021 (https://womencourage.acm.org/2021/), attended by over 250 participants from 38 countries. The conference featured Keynotes, Panels, Roundtables, Posters, Workshops, Tutorials, Hackathon, Career Fair, Networking, Morning Yoga sessions, and Scholarships for participants.
In **September 2021**

EUGAIN Meet-up With Existing Initiatives – in organizing team
I initiated and co-organized a (virtual) meet-up with existing initiatives across Europe that focus on tech education and encouragement of girls towards computing and STEM.
In **June 2021**

"COST Action Network on Gender Balance" panel at ICSE'21 – co-organizer
I was one of the panelists within the "COST Action Network on Gender Balance" panel organized within ICSE 2021, encouraging and supporting women in software engineering.
In **May 2021**

EUGAIN Event celebrating the Int. Women's Day – in organizing team, speaker
I was involved in a (virtual) event celebrating the International Women's Day, speaking on the topic of how conferences can help women grow in our careers.
In **March 2021**

WIRE 2020 workshop on "Why and how to improve gender balance at all stages of the career path in Informatics" – in organizing team
Involved in organization and moderating of WIRE 2020 workshop collocated with ECSS 2020, theme "Why and how to improve gender balance at all stages of the career path in Informatics"
In **October 2020**

Women in Tech 2019 – in organizing team, moderator
In organizing team (and moderator of the whole day on the main stage) of the Women in Tech 2019 conference (https://www.womenintech.cz/), attended by over 350 participants. The conferece featured different stages, workshops and co-located activities.
In **May 2019**

TEDxBrnoWomen 2016 – in organizing team
In organizing team of TEDxBrnoWomen (https://www.tedxbrnowomen.cz/), a TEDx conference held to support and celebrate women, attended by over 250 participants. In **October 2016**

SELECTED I&D RECOGNITIONS

ACM Diversity Heros
In 2021 featured in the ACM Blog Series Breath of Fresh Air – Diversity Heroes.

Vogue Leaders
In 2021 featured in the Vogue Leaders section, by Vogue, Czech Republic.

Computerworld TOP personalities in tech
In 2021 featured in the "TOP personalities in tech" by the Computerworld magazine, Czech Republic.

Barbie series "Be who you wanna be"
In 2019 featured in the Barbie series "Be who you wanna be" of inspirational women in the Czech Republic.

Forbes "17 Exceptional People"
In 2017 featured in the selection of "17 Exceptional People" by the Forbes magazine, Czech Republic.

PUBLIC SPEAKING ON I&D

I have given over 55 invited talks on the topic of inclusion and diversity, promoting women in software engineering. Some of the most recent public talks and trainings I gave included:

– Nov 2022 – **Keynote** on "Strengthening the Participation of Girls in Tech in Czechia", Girls & ICT Webinar, Digital Innovation Hub, Slovenia.

– Nov 2022 – **Invited training** on "Lessons on the Increasing Role of Diversity in CS/ICT", Masaryk University, Brno.

– Oct 2022 – **Invited training** on "Integrating a Gender Dimension in R&I Teams", COST Academy, Brussels.

– Oct 2022 – **Keynote** on "Engaging more Women in Tech: The WHYs and HOWs", Czechitas Job Fair, Prague.

– Jul 2022 – **Keynote** on "The Success Story of Czechitas: Engaging More Girls in Tech Education", The High Level Group on Education and Training, Czech EU Presidency.

– Jun 2022 – **Invited talk** on "Lessons on the Increasing Role of Diversity in Tech – The Story of Czechitas", IE Gender Equality Webinar Series, Informatics Europe.

– Nov 2021 – **Speaker (one of the winners)** within the Social Economy Europe podcast, special episode with EU Social Economy Award winners, European Parliaments Social Economy Intergroup.

– Oct 2021 – **Keynote** on "Lessons on the Increasing Role of Diversity in Software Engineering", RICAIP Seminar Series, CEITEC.

– Sep 2021 – **Keynote** on "Why the Wrong People Choose to Study SW Architecture and the Right People do Not", European Conference on Software Architecture 2021 (ECSA'21).

– May 2021 – **Invited panelist** on "The Role of Diversity in Bridging Communities to Foster Innovation", US Embassy in Prague.

– May 2021 – **Keynote** on "Powerful Story of Czechitas: Empowering and Engaging Women in Tech", Grace Hopper Celebration EMEA, AnitaB.org.

- Apr 2021 – **Keynote** on "How to Get more Girls into Tech?", SAP Meet and Code Purpose Talks.

- Feb 2021 – **Keynote** on "Why the wrong people choose to study software architecture and the right people do not – lessons on the increasing importance of diversity within software architecture community", SEN (Software ENgineering) Symposium 2021.

- Dec 2020 – **Invited panelist** on "Gender and education: Levelling the playing field for women and men", 3rd European Education Summit, European Commission.

PUBLICATIONS ON I&D

Besides my research on software architecture (being an author of over 100 research papers, see https://scholar.google.com/citations?user=3J7jHK4AAAAJ), I have co-authored the following studies on the topic of women in software engineering and I&D.

[1] Happe, Lucia, and Barbora Buhnova. "Frustrations Steering Women away from Software Engineering." IEEE Software journal, vol. 39, no. 4 (2022): 63–69.

[2] Happe, Lucia, Barbora Buhnova, Anne Koziolek, and Ingo Wagner. "Effective measures to foster girls' interest in secondary computer science education." Education and Information Technologies journal 26, no. 3 (2021): 2811–2829.

[3] Buhnova, Barbora, and Lucia Happe. "Girl-friendly computer science classroom: Czechitas experience report." In European Conference on Software Architecture, pp. 125–137. Springer, 2020.

[4] Buhnova, Barbora, Lucie Jurystova, and Dita Prikrylova. "Assisting women in career change towards software engineering: experience from Czechitas NGO." In Proceedings of the 13th European Conference on Software Architecture-Volume 2, pp. 88–93. 2019.

[5] Buhnova, Barbora, and Dita Prikrylova. "Women want to learn tech: Lessons from the Czechitas education project." In 2019 IEEE/ACM 2nd International Workshop on Gender Equality in Software Engineering (GE), pp. 25–28. IEEE, 2019.