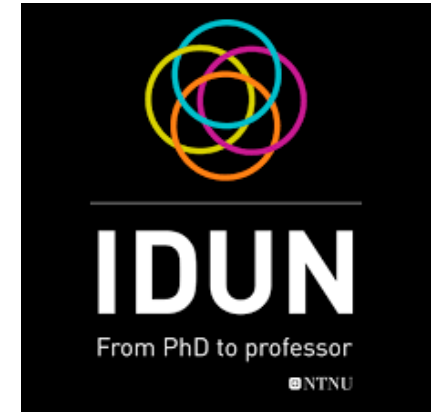




**NTNU – Trondheim**  
Norwegian University of  
Science and Technology



**Politecnico  
di Torino**

# Letizia Jaccheri

Gender Issues in Computer Science Research, Education, and Society

Pisa 16.12.2021



INFORMATICS  
EUROPE



<https://www.ntnu.edu/employees/letizia.jaccheri>

- Master in Computer Science  
Universita' di Pisa 1988 –  
supervisor V. Ambriola
- PhD Software Engineering  
Politecnico di Torino 1995 –  
supervisor S. Gai
- In Norway as exchange student in  
1989 – supervisor R. Conradi
- Programmer for two years in late  
80'
- Professor at NTNU since 2002
- Department head from 2013 to  
2017
- Adjunct Professor at UiT since 2019
- Independent Director of Reply SPA  
(with 6000 employees) in 2015-  
2018
- ACM Distinguished Speaker (one  
out of 200 since 2018)  
<https://speakers.acm.org/speakers/>
- Årets døråpner 2019 Trondheim
- Two gender equality prizes in 2021
  - ODA network
  - NTNU gender

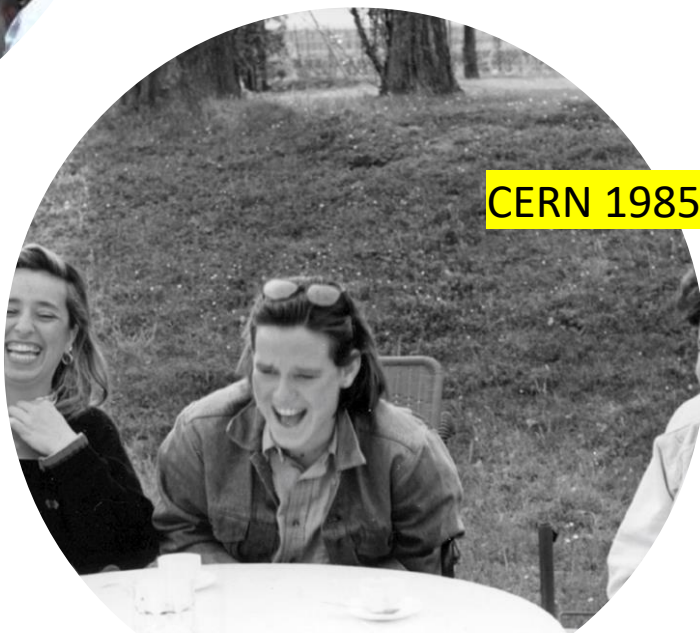




2018 Keynote Pakistan



2003 RIK Kunst og Teknologi



CERN 1985

# Letizia Jaccheri

## From PhD to Professor

- Conferences & network building
- Stays abroad
- Teaching and dissemination (prize in 2006 for Bok Kjærlighet og Computer see [letiziajaccheri.org](http://letiziajaccheri.org))
- Research & supervision
- Activist for my values: gender, art, social innovation

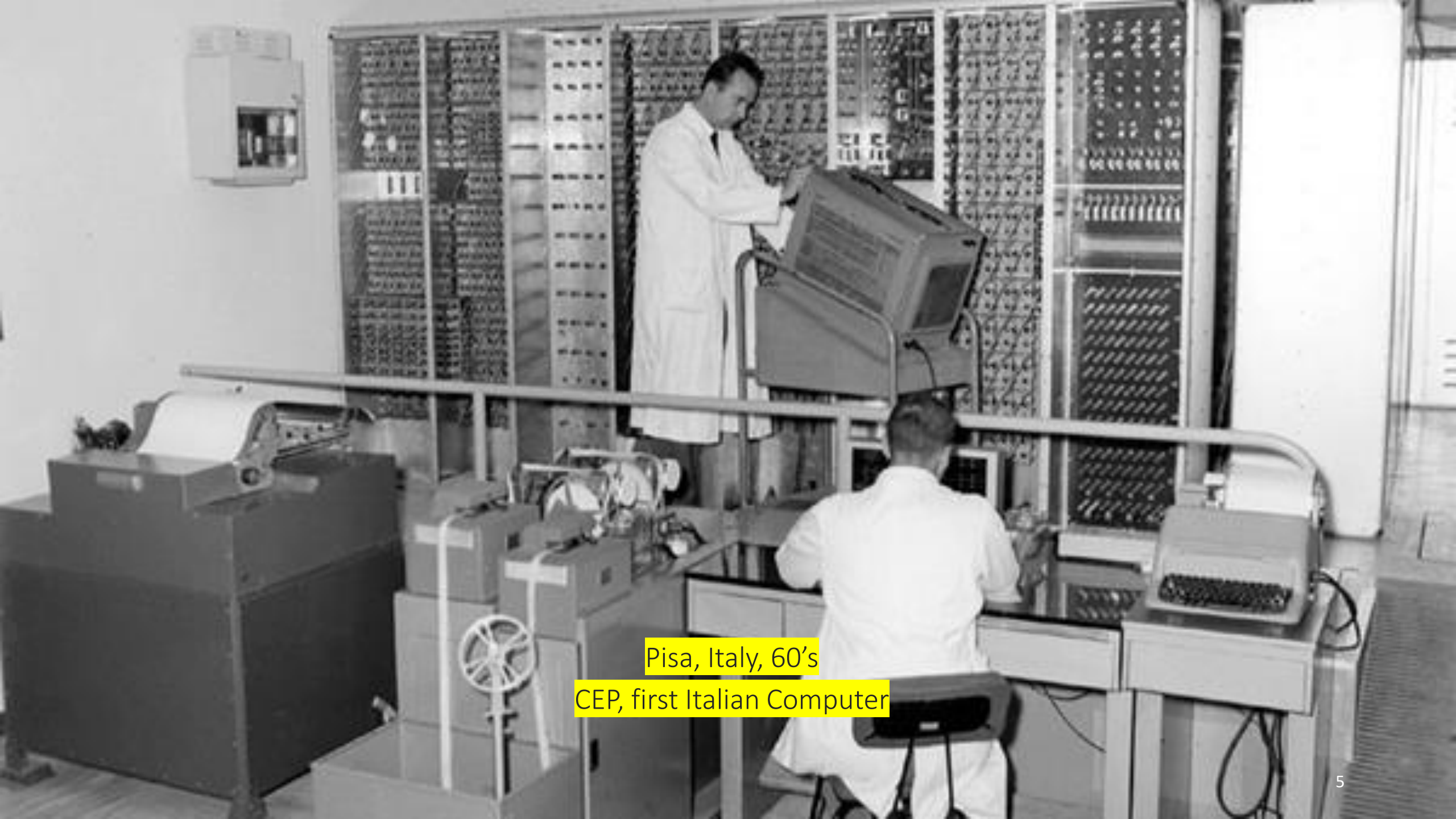
# Supervision (facts)

Phd now	5, 2.f, 3.m
Phd total	20, 10.f, 10.m
Phd opponent	20, 10.f, 10.m
Postdoc	7, 1.f, 6.m
Total	52, 23.f, 29.m

<https://sbs.idi.ntnu.no/>

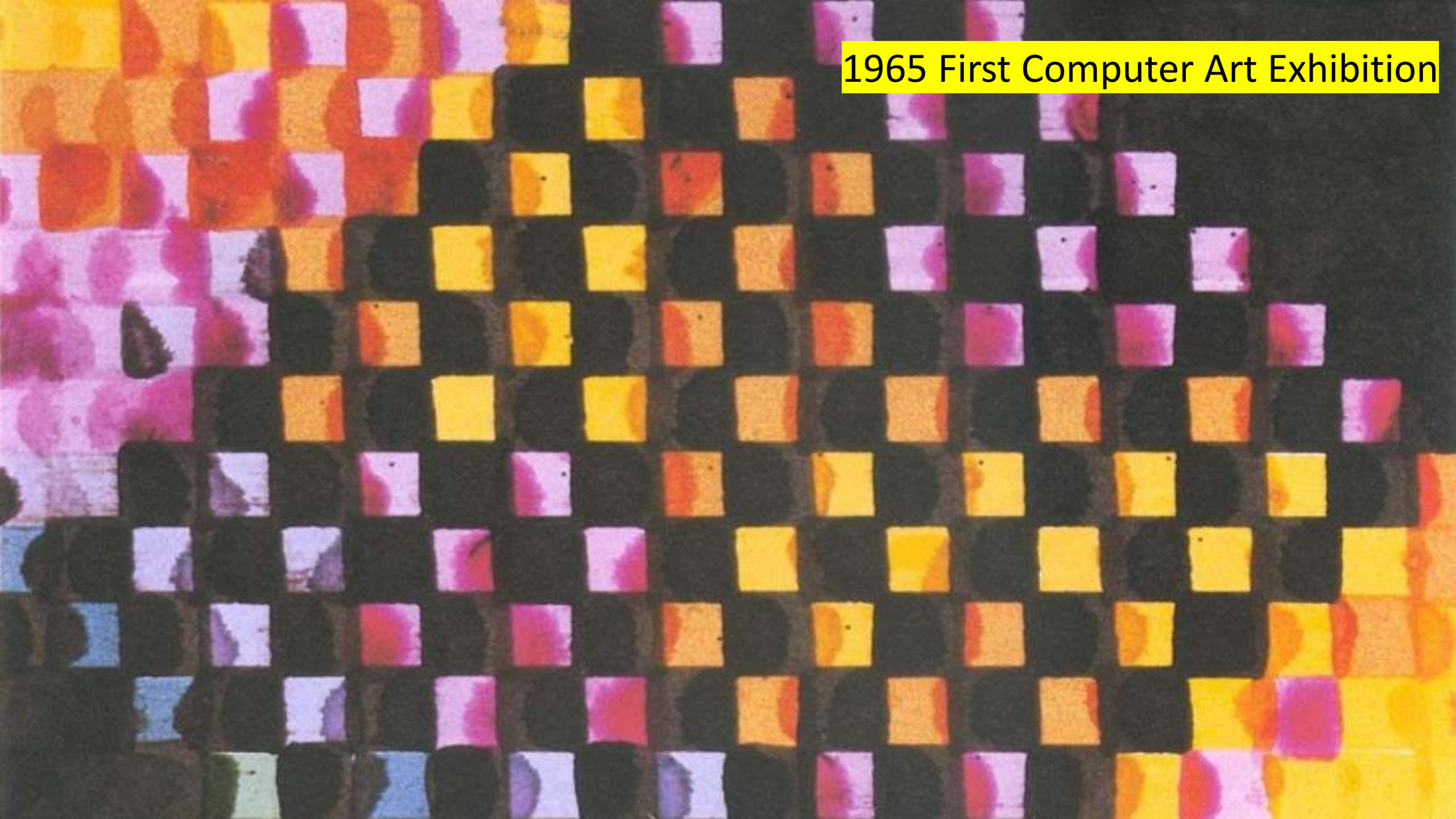
# Projects

<a href="#">INITIATE</a>	INnovation through blg daTa and social enTrepreneursh ip	H2020 2018 – 2021	<a href="#">Letizia Jaccheri</a> - Ilias Pappas
<a href="#">INTPART</a>	IPIT International Partnership in Information Technology	NFR 2017 – 2021	<a href="#">Letizia Jaccheri</a> - <a href="#">Jingyue Li</a>
BALANSE <a href="#">IDUN</a>	From PhD to Professor	NFR 2019 - 2022	<a href="#">Letizia Jaccheri</a> - <a href="#">Swetlana Fast</a> , <a href="#">Mara Diaconou</a>
COST Action CA19122 Eugain	<a href="#">European Network for Gender Balance in Informatics</a>	COST Action 2020 - 2024	Action Chair Letizia Jaccheri Vice-Chair Bara Buhnova



Pisa, Italy, 60's  
CEP, first Italian Computer

1965 First Computer Art Exhibition



1989 Pisa Keith Haring

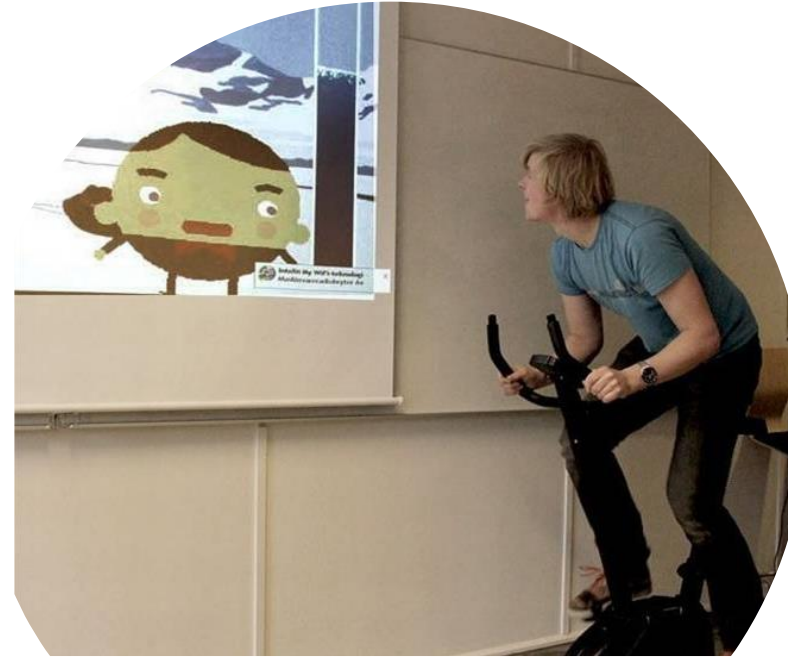




letiziajaccheri.org

Try to understand the relation between life and software





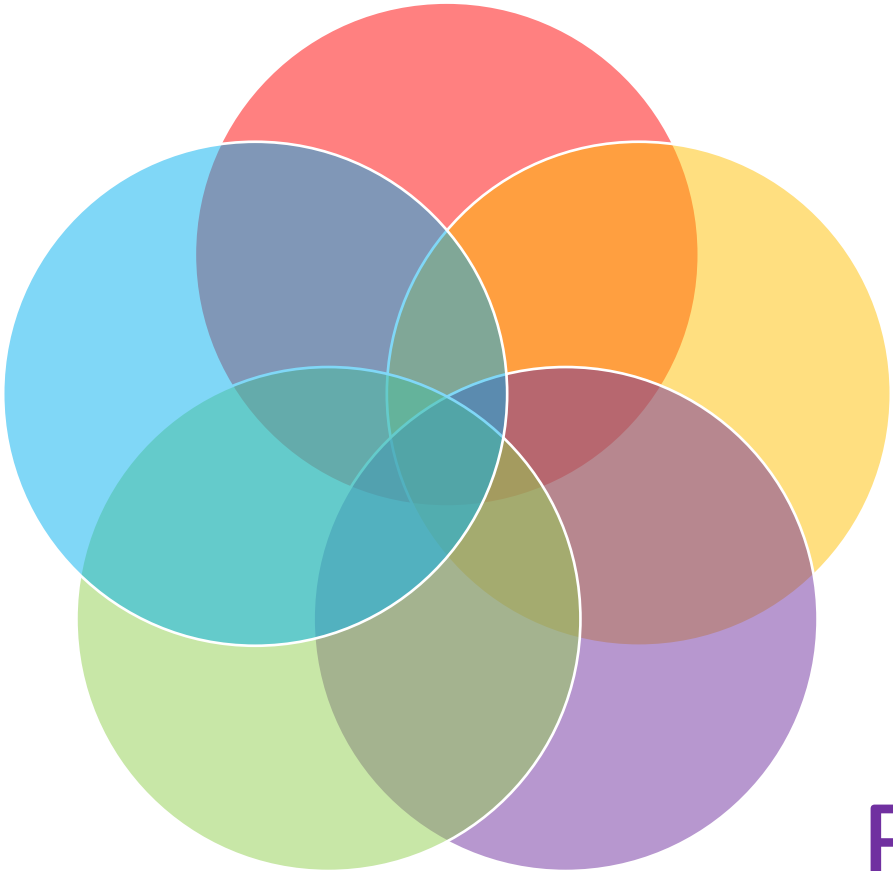
Gender

Network,  
Resources

Research

Projects

Education





## UN Goal 5:

Achieve **gender equality** and empower all **women** and girls. Ending all discrimination against **women** and girls is not only a basic human right, it's crucial for sustainable future; it's proven that empowering **women** and girls helps economic growth and development.



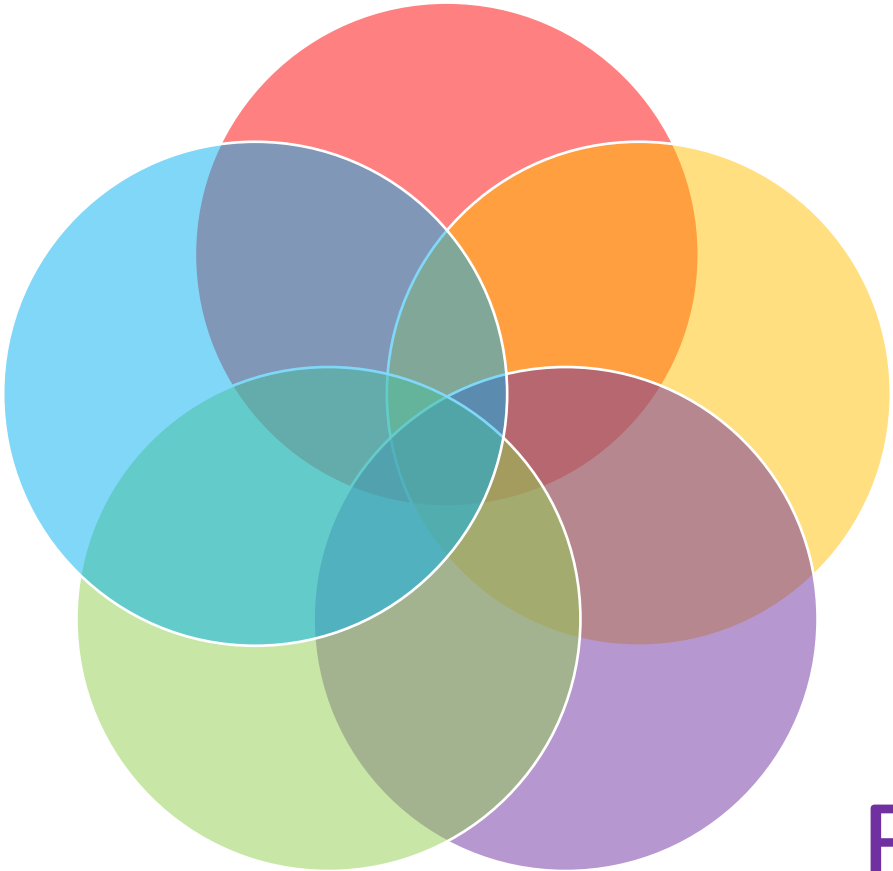
Gender

Network,  
Resources

Research

Projects

Education



# Software engineering and gender

- People decide requirements
- People develop solutions for people
- People Interact with systems

# Software engineering and gender

- People decide requirements
- People develop solutions for people
- People Interact with systems

Question: who decides the requirements and for which people?



# Technology with gender biases



ACTIVITY TRACKERS THAT FAIL TO MEASURE STEPS IN THE, PREDOMINANTLY FEMALE, ACTIVITY OF PUSHING A STROLLER.



TRANSPORT NETWORKS THAT IGNORE THE SO-CALLED “MOBILITY OF CARE”



AI RECRUITING TECHNOLOGY DEVELOPED TRAINED PREDOMINANTLY ON MEN’S RÉSUMÉS



EU REPORT OF THE EXPERT GROUP “INNOVATION THROUGH GENDER”

# Software engineering and AI

## People

- Decide requirements
- Develop solutions for people
- Interact with systems

## Computer system

- learns



腾讯  
Tencent

**Question: who decides how the system will learn?**





**Which subjects in research experiment?**

# Detecting Gender Stereotypes

## Embodiment

Only two stories did not provide any physical description of the characters and just one had no images at all. Across remaining 21 stories representing characters, male protagonists (68%) appeared more often than female ones (32%).



Figure 1 Drawing created by a boy (left) and by a girl (right)




# KODELØYPA

## 2014 - ONGOING



SENSORER	REAKSJON	BLINKING
 <p><b>OPPGAVE</b> Finn lysensoren på roboten deres. Se hvordan verden i Scratch endrer seg når dere legger en hånd på sensoren.</p>	 <p><b>OPPGAVE</b> Få roboten til å lyse når dere holder hånda over lysensoren. Bruk korver-blokken rundt "I" for at Scratch skal speile verden til sensoren hele tiden.</p>	 <p><b>OPPGAVE</b> Få flere av lysene på roboten til å blinke.</p>



# Art & Recycling

## Coding & Interaction

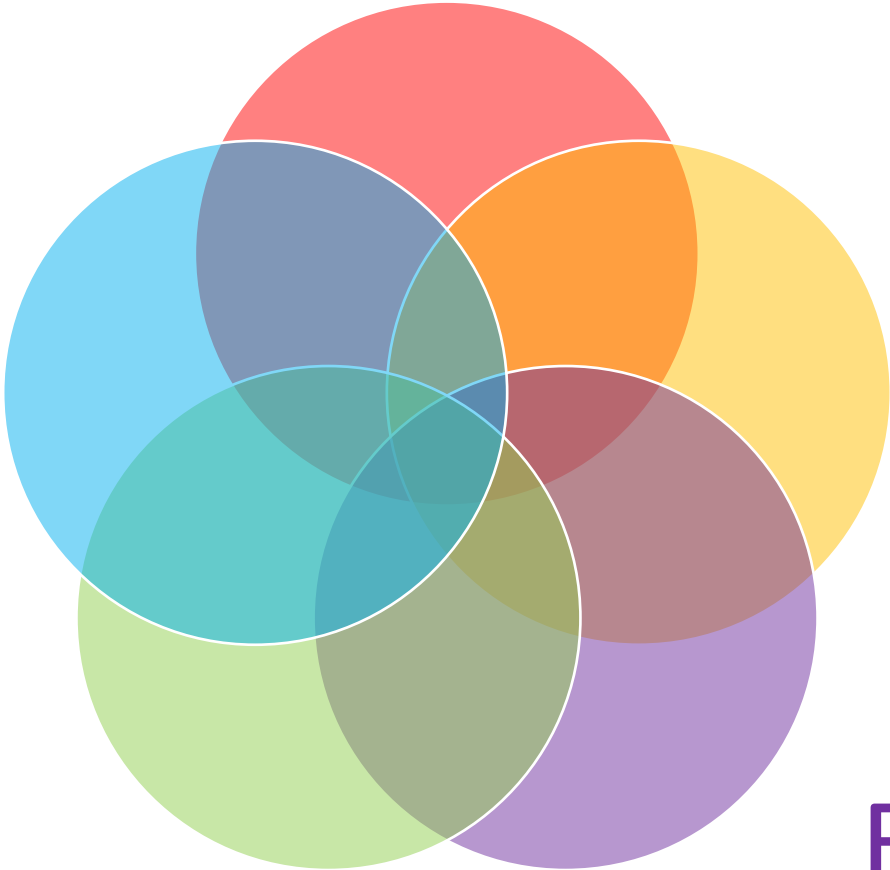
Gender

Network,  
Resources

Research

Projects

Education



# Europe Bachelor, Master, PhD

- At the Bachelor level 80% or more of the students enrolling or graduating in Informatics Bachelor programs are male.
- At the Master level 80% of the Master graduates in Austria, Belgium, Czech Republic, Germany, Italy, Lithuania, the Netherlands, Poland, Portugal, Spain, Switzerland are male
- At the Ph.D. level, except for Bulgaria, Romania, Estonia, Turkey, all other countries have less than 25% of women graduating from Informatics Ph.D. programs



# Scarcity of role models

- Engineering and Technology: on average, in the whole of Europe, women take less than 15% of the full professor positions
- Figures show that in 2016, an overwhelming majority (83.3%) of ICT specialists employed in the EU were men.
- Skills and talent gap: 53% of European employers say they face difficulties in finding the right people with the right qualifications.



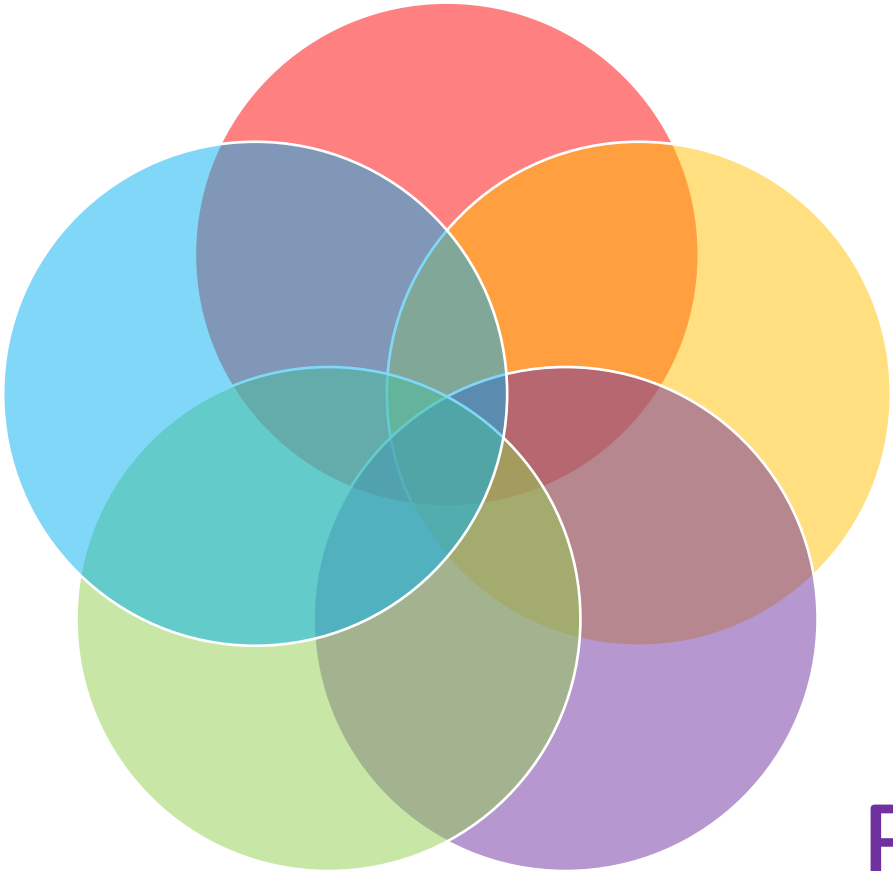
Gender

Network,  
Resources

Research

Projects

Education





Solution?

The Girl Project Ada!



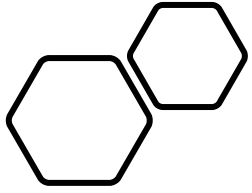
# Projects like Girl project ADA make a difference

2004	2019
7%	36%

Average %-share 5-year integrated Master

- Computer Sciences
- Communication Technologies
- Cybernetics and Robotics
- Electronics System design and innovation

[www.ntnu.edu/girls](http://www.ntnu.edu/girls)



# Technology Week

- Invite girls from high school from all over the country
- 3 days
- Presentations and workshops
- Personal meeting with rolemodels
- Meeting students
- Break down stereotypes
- Hands-on experiences

Image: Geir Mogen/NTNU





## Other events through the semester

- Calling the applicants
- Welcome day
- 8th March - Women's Day
- Networking lunches
- Programming courses
- Mountain hiking
- CodeHubs
- PhD-party

**ABB**

ACANDO

accenture  
High performance. Delivered.

**ARM**<sup>®</sup>

ATEA

**AUTRONICA**  
United Technologies

BearingPoint.

BEKK

Capgemini

**CISCO**<sup>®</sup>

equinor

**EVRY**

**EY**

**FINN**

*itera*

**KONGSBERG**

netcompany

netlight

netlight

**NORDIC**  
SEMICONDUCTOR

**norsk  
elektro  
optikk..**

**Rolls-Royce**

**Schlumberger**

**SILICON LABS**

**SINTEF**

**Skatteetaten**

sopra **steria**

telenor

**TEXAS  
INSTRUMENTS**

**VISMA**<sup>®</sup>

# Why IDUN?

## Statistikk

Studenter  
Doktorgrader  
Vitenskapelig publisering  
Tilsatte  
Økonomi  
Internasjonalisering  
Årsrapport  
Andre data  
Statistikk til tilstandsrapportene

Velg stillingskategori

Organisering/hierarki = Institusjonstype-institusjon-fakultet-institutt-stillingskode

Årstill = 2020, 2019, 2018, 2017, 2016, 2015

Institusjonstype = Universiteter

Institusjon = Norges teknisk-naturvitenskapelige universitet

Stilling = Professor (1013)

Departement = Kunnskapsdepartementet

Start ▶ Universiteter ▶ Norges teknisknaturvitenskapelige universitet ▶ Fakultet for informasjonsteknologi og elektroteknikk

Avdelingsnavn	2015		2016		2017		2018		2019		2020	
	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)
Institutt for datateknologi og informatikk	20,8	9,62	21,8	9,17	25,2	12,7	28,7	11,5	30,5	12,13	33,35	11,69
Institutt for elektroniske systemer	18,5	16,22	21	14,29	22	13,64	22,75	13,19	24,75	12,93	24,75	12,93
Institutt for elkraftteknikk	9	11,11	9,6	10,42	11	9,09	10	10	11,5	18,26	10,9	13,76
Institutt for IKT og realfag					1	0	1	0	3	0	3	0
Institutt for informasjonssikkerhet og kommunikasjonsteknologi	9,8	1,02	9	0	18,2	5,49	18,7	5,35	19,7	5,08	18,6	6,45
Institutt for matematiske fag	35,3	14,16	35,3	14,16	34,3	17,49	34	20,59	32,6	19,02	36,6	19,67
Institutt for teknisk kybernetikk	11	18,18	11	18,18	10	20	10	20	15,8	21,52	15,8	21,52
<b>Sum</b>	<b>104,4</b>	<b>12,55</b>	<b>107,7</b>	<b>12,07</b>	<b>121,7</b>	<b>13,31</b>	<b>125,15</b>	<b>13,82</b>	<b>137,85</b>	<b>14,22</b>	<b>143</b>	<b>14,27</b>

**Merk:** Før 2019 er samtlige professor II plassert på egne stillingskoder (9301 og 8013). Fra og med 2019 håndteres professor II på samme måte som andre kategorier bistillinger, og må derfor skilles ut i rapporten ved hjelp av variabelen stillingstype (ordinær/bistilling).

14%

# IDUN – from PhD to Professor 1 Mio. Euro 2019 – 2022

## Background:

581 employees in scientific  
positions – 22% female

125 professors – 13,8% female

## Challenge:

- Too few women at master level
- Dropout from phd to professor

<https://www.ntnu.edu/idun>



# IDUN

From PhD to professor

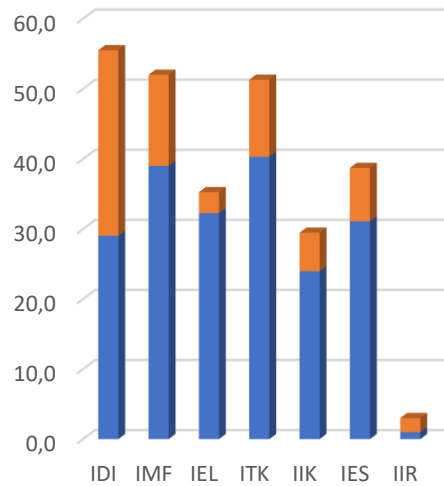
NTNU



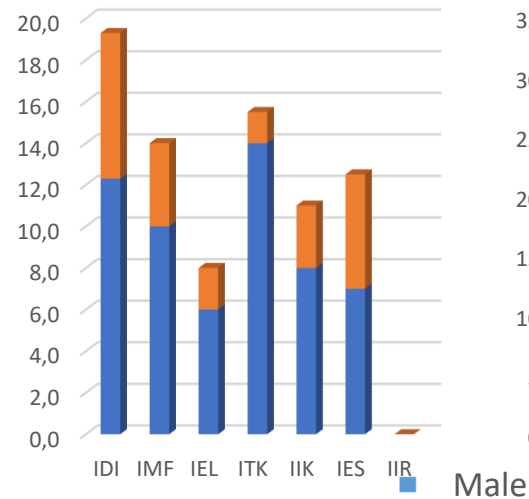
*Idun Reiten, the first female professor at the Faculty of  
Information Technology and Electrical Engineering,  
Norwegian University of Science and Technology (NTNU)*

# Gender balance at the IE faculty

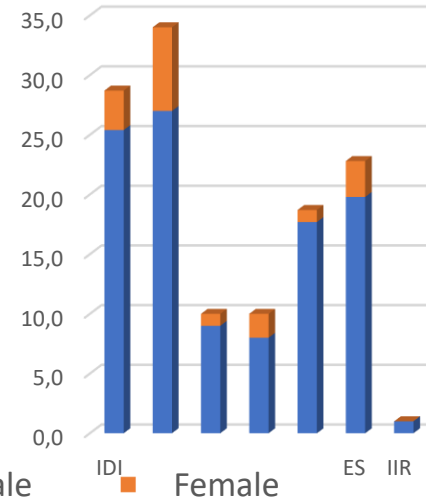
PhD Candidates



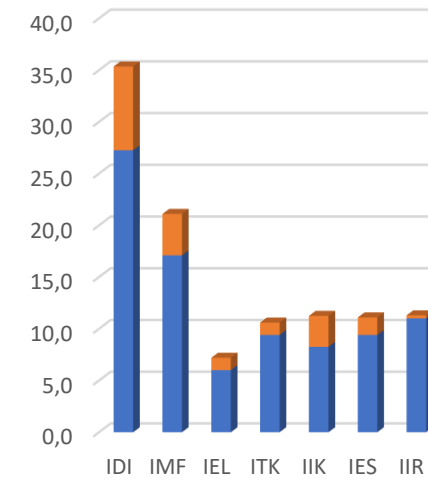
Postdoctors



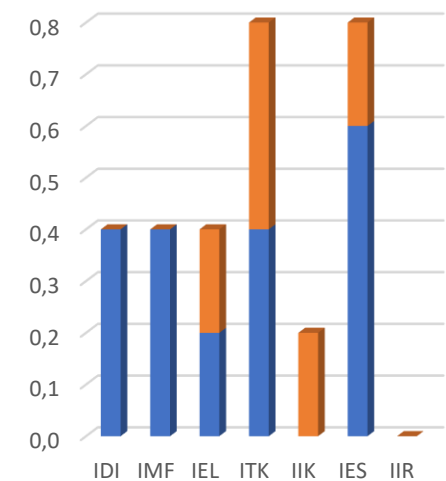
Professors



Associated professors



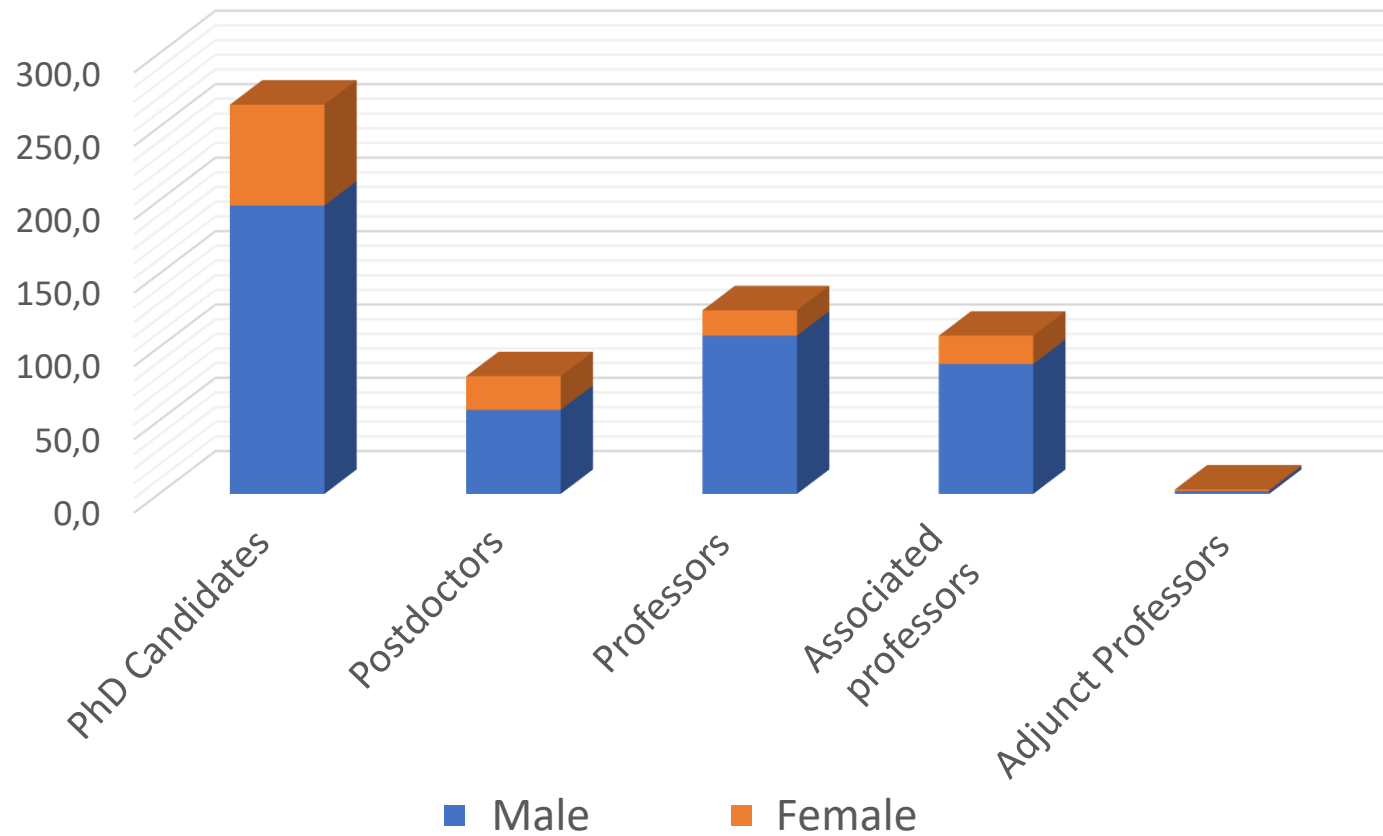
Adjunct Professors



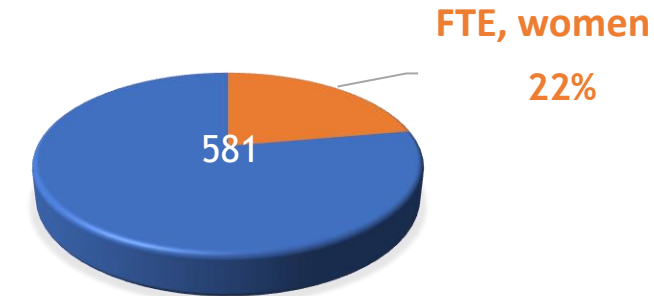
# Why IDUN?



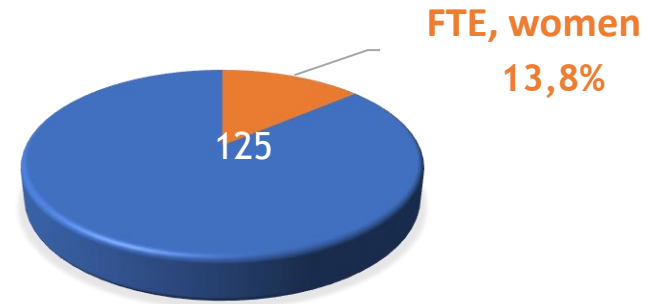
### SCIENTIFIC PERSONNEL AT IE FACULTY



### SCIENTIFIC PERSONNEL

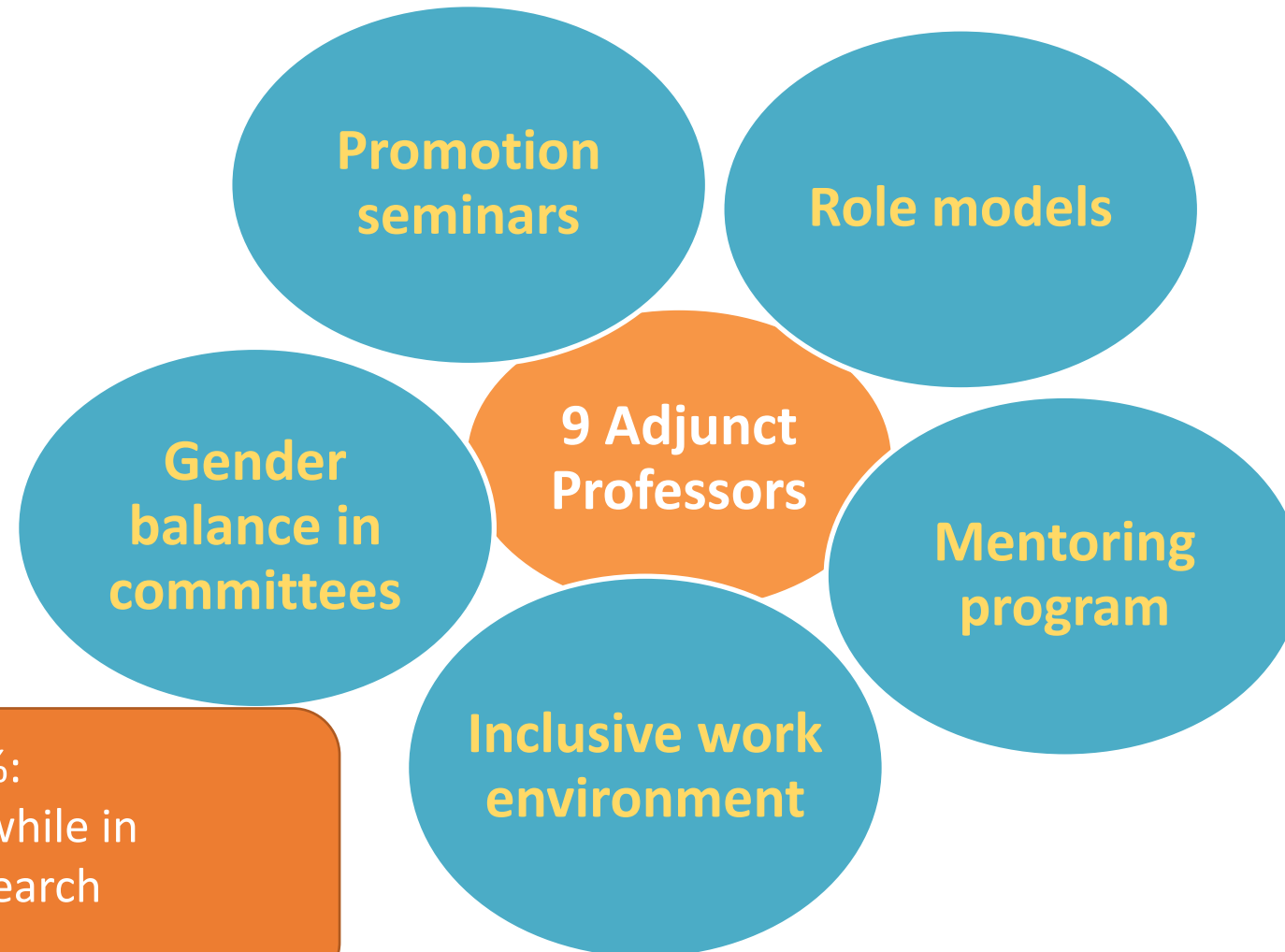


### PROFESSORS





# IDUN Scientific Mentoring Program & beyond



9 mentors + 1 co-mentor

37 mentees

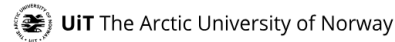
3-7 mentees per mentor

# IDUN Scientific Mentor program

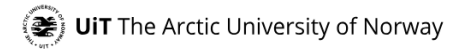
## 9 International professors as IDUN mentors



**Nirmalie Wiratunga**  
(IDI team)  
<http://www.rgu.ac.uk/dms/taff/wiratunga-nirmalie/>



**Anne Håkansson (ITK team)**  
[https://en.uit.no/ansatte/person?p\\_document\\_id=584195](https://en.uit.no/ansatte/person?p_document_id=584195)



**Jana Jagerska (IES team)**  
[https://en.uit.no/ansatte/person?p\\_document\\_id=407454](https://en.uit.no/ansatte/person?p_document_id=407454)

Co-mentor

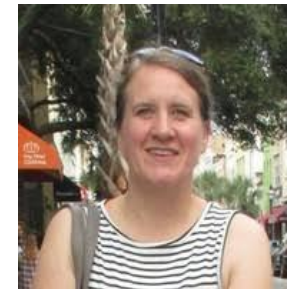
Professor Astrid Aksnes  
UiT - The Arctic University of Norway



**Martha Larson**  
(IDI team)  
<https://www.ru.nl/english/people/larson-m/>



**Gro Klaboe (IEL team)**  
<https://no.linkedin.com/in/gro-kl%C3%A6boe-7b87741a>



**Sibylle Schroll (IEL team)**  
University of Cologne  
<https://sites.google.com/site/sibylleschroll/>



**Darja Smite**  
(IDI team)  
<https://darjasmite.net/>



**Laura Giarre**  
(IIR Ålesund - IDI Gjøvik team)  
<https://giarre.wordpress.com/>



**Toktam Mahmoodi**  
(IHK team)  
<https://www.kcl.ac.uk/people/toktam-mahmoodi>



# November 2021

Organisering/hierarki = Institusjonstype-institusjon-fakultet-institutt-stillingskode

Årstall = 2021, 2020, 2019, 2018, 2017

Institusjonstype = Universiteter

Institusjon = Norges teknisk-naturvitenskapelige universitet

Stilling = Professor (1013), Professor (1404)

Departement = Kunnskapsdepartementet

**01.11.2021:** Rapporten er justert på bakgrunn av anbefalinger fra arbeidsgruppe som har sett på midlertidighetsstatistikken i UH-sektoren. Inndeling av stillinger i kategorier er endret slik at det nå er færre stillingskategorier. I tillegg er beregning av midlertidighet noe endret. For detaljer vises det til rapporten fra arbeidsgruppen (s.11-13). Beregning av midlertidighet: Gjelder nå stillingskategoriene UN1, samt AD2 og ST1-3. Åremål og bistillinger holdes helt utenfor. Trykk her for å stille inn rapporten slik. Trykk her for å stille inn rapporten tilsvarende nasjonal styringsparameter «Andel midlertidig ansatte i undervisnings- og forskerstillingene».

Start ▶ Universiteter ▶ Norges teknisk-naturvitenskapelige universitet ▶ Fakultet for informasjonsteknologi og elektroteknikk

Avdelingsnavn	2017		2018		2019		2020		2021	
	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)
Institutt for datateknologi og informatikk	25,2	12,7	28,7	11,5	30,5	12,13	33,35	11,69	35,6	17,56
Institutt for elektroniske systemer	22	13,64	22,75	13,19	24,75	12,93	24,75	12,93	25,7	12,45
Institutt for elkraftteknikk	11	9,09	10	10	11,5	18,26	10,9	13,76	11,7	12,82
Institutt for IKT og realfag	1	0	1	0	3	0	3	0	4,6	8,7
Institutt for informasjonssikkerhet og kommunikasjonsteknologi	18,2	5,49	18,7	5,35	19,7	5,08	18,6	6,45	20	11
Institutt for matematiske fag	34,3	17,49	34	20,59	32,6	19,02	36,6	19,67	36	21,11
Institutt for teknisk kybernetikk	10	20	10	20	15,8	21,52	15,8	21,52	15,3	22,22
<b>Sum</b>	<b>121,7</b>	<b>13,31</b>	<b>125,15</b>	<b>13,82</b>	<b>137,85</b>	<b>14,22</b>	<b>143</b>	<b>14,27</b>	<b>148,9</b>	<b>16,49</b>

16,5%

**Merk:** Før 2019 er samtlige professor II plassert på egne stillingskoder (9301 og 8013). Fra og med 2019 håndteres professor II på samme måte som andre kategorier bistillinger, og må derfor skilles ut i rapporten ved hjelp av variabelen stillingstype (ordinær/bistilling).

# November 2021

Stilling = Stipendiat (1378), Stipendiat (1017)

Departement = Kunnskapsdepartementet

**01.11.2021:** Rapporten er justert på bakgrunn av anbefalinger fra arbeidsgruppe som har sett på midlertidighetsstatistikken i UH-sektoren. Inndeling av stillinger i kategorier er endret slik at det nå er færre stillingskategorier. I tillegg er beregning av midlertidighet noe endret. For detaljer vises det til rapporten fra arbeidsgruppen (s.11-13).

Beregning av midlertidighet: Gjelder nå stillingskategoriene UN1, samt AD2 og ST1-3. Åremål og bistillinger holdes helt utenfor. Trykk her for å stille inn rapporten slik. Trykk her for å stille inn rapporten tilsvarende nasjonal styringsparameter «Andel midlertidig ansatte i undervisnings- og forskerstillinger».

Start ▶ Universiteter ▶ Norges teknisk-naturvitenskapelige universitet ▶ Fakultet for informasjonsteknologi og elektroteknikk

Avdelingsnavn	2017		2018		2019		2020		2021	
	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)	Årsverk	Årsverk kvinner (%)
Institutt for allmennfag	2	100								
Institutt for datateknologi og informatikk	49,45	43,88	55,5	47,66	65,41	48,33	93,52	43,7	106	36,37
Institutt for elektroniske systemer	33,05	15,13	38,7	19,64	34,5	28,99	41	21,95	46,4	23,71
Institutt for elkraftteknikk	24	16,67	35,25	8,51	28,25	10,62	35	14,29	48,5	17,53
Institutt for IKT og realfag	2	50	3	66,67	6	33,33	8,5	29,41	12,75	29,41
Institutt for informasjonssikkerhet og kommunikasjonsteknologi	23,46	14,92	29,46	18,67	35,46	22,56	35,75	27,97	43,7	36,61
Institutt for matematiske fag	49,4	19,84	52	25	61,6	20,45	69,1	21,13	68,75	16
Institutt for teknisk kybernetikk	49,33	20,27	51,3	21,44	65,4	24,16	85,85	18,11	94,65	17,22
<b>Sum</b>	<b>232,69</b>	<b>24,5</b>	<b>265,21</b>	<b>25,85</b>	<b>296,62</b>	<b>27,99</b>	<b>368,72</b>	<b>26,45</b>	<b>420,75</b>	<b>24,98</b>

**Merk:** Før 2019 er samtlige professor II plassert på egne stillingskoder (9301 og 8013). Fra og med 2019 håndteres professor II på samme måte som andre kategorier bistillinger, og må derfor skilles ut i rapporten ved hjelp av variabelen stillingstype (ordinær/bistilling).

Gender

Network,  
Resources

Research

Projects

Education



# ACM Women Chapter



- Why Should You Start an ACM-W Chapter at Your School?
- “101 Ideas for ACM-W Chapters”
- Activities to educate women about the opportunities in the computing field
- Engage women students in exciting computing activities;
- Connect students with women leaders in the field;
- Encourage students to promote the field of computing to young girls;
- Promote the activities of ACM
- Network with other ACM-W Chapter leaders and members
- Mentor chapter members and pre-college girls
- Broaden the computing community
- Extend the “conversation” about why it’s important to increase the number of women in computing

<https://women.acm.org/chapter/>

<https://trondheimwomen.acm.org/home/>

COST Action  
European Network For Gender Balance in Informatics  
(EUGAIN)



- 24 member countries: Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherland, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Turkey, UK
- The 38 COST Members are: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Republic of Moldova, Montenegro, The Netherlands, The Republic of North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom.



European Network  
for Gender Balance  
in Informatics



EUGAIN

eugain.eu



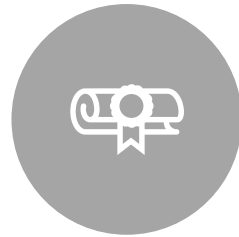
# The main challenges addressed

- How to have more girls choosing Informatics as their higher education studies and profession.
- How to retain female students and assure they finish their studies and start successful careers in the field.
- How to encourage more female Ph.D. and postdoctoral researchers to remain in the academic career and apply for professorships in Informatics departments.
- How to support and inspire young women in their careers and help them to overcome the main hurdles that prevent women to reach senior positions in the field.
- How to leverage from the experience of the partners in the network to tackle the previous challenges and achieve progress across more institutions and countries, and positive results that are sustained on the longer term.

# EUGAIN



**WG1: FROM SCHOOL  
TO UNIVERSITY**



**WG2: FROM  
BACHELOR/MASTER  
STUDIES TO PH.D.**



**WG3: FROM PH.D.  
TO PROFESSOR**



**WG4: COOPERATION  
WITH INDUSTRY  
AND SOCIETY**



**WG5: STRATEGY &  
DISSEMINATION**

- Conferences
  - Grace Hopper Celebration. <https://ghc.anitab.org>
  - ACM ACM Celebration of Women in Computing womENCourage (Rome 2019)
  - <http://ieee-wie-ilc.org/>
  - womENCourage
- Projects at Universities
  - NFR BBI UiT
  - CS4All initiative, School of Computing, TU Dublin, [www.dit.ie/computing/studentresources](http://www.dit.ie/computing/studentresources)
  - Irène Curie Fellowship at TU Eindhoven. <https://www.tue.nl/en/working-at-tue/scientific-staff/irene-curie-fellowship>
  - Gender Initiative Chalmers <https://www.chalmers.se/en/about-chalmers/Chalmers-for-a-sustainable-future/initiatives-for-gender-equality/gender-initiative-for-excellence/Pages/default.aspx>
  - EQUAL-IST Project. <https://equal-ist.eu>



- Policy Documents and white papers
  - Women in Digital. Digital Single Market Policy. <https://ec.europa.eu/digital-single-market/en/women-ict>
  - <https://unesdoc.unesco.org/ark:/48223/pf0000367416>
  - EU Report of the Expert Group “Innovation through Gender” <https://op.europa.eu/en/publication-detail/-/publication/d15a85d6-cd2d-4fbc-b998-42e53a73a449>
  - SHE Figures <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/67d5a207-4da1-11ec-91ac-01aa75ed71a1> 2021
  - ELSEVIER The researcher journey ... <https://www.elsevier.com/research-intelligence/resource-library/gender-report-2020>
  - Informatics Europe Report on Informatics Education in Europe <https://www.informatics-europe.org/publications.html>
- International Networks
  - Informatics Europe WIRE <https://www.informatics-europe.org/working-groups/women-in-ict-research-and-education.html>
  - ACM Women in Computing Europe. <https://europe.acm.org/acm-we>
  - European Centre for Women and Technology. <http://www.ecwt.eu>
  - CEPIS Women in ICT Task Force. <https://www.cepis.org/index.jsp?p=1142&n=2909>



# Thanks to

- This work is co-funded by the Research Council of Norway under BALANSE - Programme on Gender Balance in Senior Positions and Research Management and EUGAIN COST Action 19122

# References

- Trifonova A, Jaccheri L, Bergaust K. Software engineering issues in interactive installation art. *International Journal of Arts and Technology*. 2008 Jan 1;1(1):43-65.
- Pappas I, Jaccheri ML, Mikalef P, Giannakos M. Social innovation and social entrepreneurship through big data: developing a research agenda. In *The 11th Mediterranean Conference on Information Systems (MCIS) 2017*. Association for Information Systems.
- Brevik J, Jaccheri L, Vidal JC. Designing software to prevent child marriage globally. In *Proceedings of the 18th ACM International Conference on Interaction Design and Children 2019 Jun 12* (pp. 452-457).
  - Podcast <https://open.spotify.com/show/5KMNI7NeqQnW7JNifl69PX?si=d1ac916845e44c79>
- Carver JC, Jaccheri L, Morasca S, Shull F. A checklist for integrating student empirical studies with research and teaching goals. *Empirical Software Engineering*. 2010 Feb;15(1):35-59.
- Rubegni E, Landoni M, De Angeli A, Jaccheri L. Detecting gender stereotypes in children digital StoryTelling. In *Proceedings of the 18th ACM International Conference on Interaction Design and Children 2019 Jun 12* (pp. 386-393).
- Papavlasopoulou S, Giannakos MN, Jaccheri L. Creative programming experiences for teenagers: attitudes, performance and gender differences. In *Proceedings of the The 15th International Conference on Interaction Design and Children 2016 Jun 21* (pp. 565-570).
- Jaccheri L, Pereira C, Fast S. Gender Issues in Computer Science: Lessons Learnt and Reflections for the Future. In *2020 22nd International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC) 2020 Sep 1* (pp. 9-16). IEEE.

# Conferences (future)

- ICSE 2027 4000 participants
  - Why should it be in Trondheim Norway?
- <https://womencourage.acm.org> September 2023
  - Get sponsors, get involvement
- EUGAIN Management Committee meeting and 1st Winter School about Research in Gender equality and software engineering March 2022
  - Event in the evening of the 8<sup>th</sup> March
- ICSE 2022 GE@ICSE: Third Workshop on Gender Equality, Diversity, and Inclusion in Software Engineering





Software Engineering Practices and Experiences Exchange between Norway and Brazil

# SENOBR

This project aims to promote excellence in Software Engineering practice by linking high-quality research and education of future researchers from Norway and Brazil. To achieve this goal, this UTFORSK project is structured to promote student and staff exchange, internationalization of education, research cooperation and joint seminars to allow young researchers to discuss their work with international scientists.



## Partners

NTNU- Norwegian University of Science and Technology

[Prof. Daniela S. Cruzes](#)

[Prof. Letizia Jaccheri](#)

Pontifical Catholic University of Rio Grande do Sul (PUCRS)

[Prof. Sabrina Marczak](#)

Federal University of Amazonas (UFAM)

[Prof. Tayana Conte](#)

Pontifical Catholic University of Paraná (PUCPR)

[Prof. Sheila Reinehr](#)

[Prof. Andrea Malucelli](#)

# advice

- Know your numbers and Set your goals
- Keep and empower the female you have
- LGBT+ (LGBT stands for lesbian, gay, bisexual and transgender/transsexual people)
- Look for funds, connections, projects
- Celebrate
- Document
- Everything is research

