



## 1. Personal details

- Pänkäälä, Mikko Tapani
- ORCID 0000-0001-6108-9975
- date and place of birth: 1 st June 1975, Renko Finland
- citizenship: Finnish
- [https://research.utu.fi/converis/portal/Person/739956?auxfun=&lang=fi\\_FI](https://research.utu.fi/converis/portal/Person/739956?auxfun=&lang=fi_FI)

## 2. Education and degrees completed

- Adjunct professor (Docent), specialty Biosignal analytics, 12/2018
- D.Sc. (Tech.), Electrical Engineering, "Potential and Challenges of Analog Reconfigurable Computation in Modern and Future CMOS", major subject Electronics, University of Turku, Finland, 12/2014
- Licentiate of Technology, Electrical Engineering, major subject System Circuits, University of Turku, Finland, 1/2008
- MSc, Electrical Engineering, major subject Electronics and Communication Technology University of Turku, Finland, 1/2004
- BSc, Engineer, major subject Transport and Automotive Engineering, Turku Polytechnic, Finland, 11/1999

## 3. Current position

- University lecturer, research team co-leader, Digital Health Technology, since 1.9.2017
- CSO, cofounder and shareholder at Precordior Oy, since 15.12.2016

## 4. Previous work experience

- Deputy director, Dept. of Future tech. 1.1.2017 – 31.8.2017
- Senior research fellow, electronics, 1.8.2012 – 31.8.2017
- Researcher, electronics, University of Turku, 1.1.2005 – 1.8.2012
- Research assistant, electronics, University of Turku, 1.8.2004 - 31.12.2004
- Researcher, electronics, University of Turku, 1.2.2004 - 31.7.2004
- Research assistant, electronics, University of Turku, 1.6.2003 - 31.1.2004
- BMH Wood Technology, Rauma, 10.1.2000 - 7.9.2001

## 5. Career Breaks

- Family leave: 1.9.2007 – 31.5.2008, 9 months
- Military service: 8/1994 - 7/1995

## 6. Personal research funding and grants

- Steering group member in all of the following projects
- PI in project Big Business from Small Data: Pervasive methods for monitoring health and well-being of pets, 4/2016-9/2017, 300 000€ from Tekes and companies
- PI in project Near Zero Cost Business, 1/2015-6/2016, 525 000€ from Tekes and companies
- At least 1/3 role in the preparation of funding applications for a research group
  - Verse: Pulse wave analysis of blood pressure using array of MEMS-pressure sensors, 11/2018-4/2020, 326.977€ from Business Finland
  - Wireless Health Instrumentation vis Self Powered Energy-efficient Remote Sensors – WHISPERS START, 1/2012-5/2012, 200.000€ from Tekes
  - Wireless Health Instrumentation vis Self Powered Energy-efficient Remote Sensors – WHISPERS SoC, 1/2013-7/2014, 500.000€ from Tekes and companies
  - Ultra Low-Power Video Compression System for Mobile Devices, 1/2005-12/2006, 214.000€ from Academy of Finland

Date of writing the CV: 24th September 2019

- Wireless Health Instrumentation vis Self Powered Energy-efficient Remote Sensors - WHISPERS AF DETECT, 10/2012-8/2014, 470.000€ from Tekes
- Heartache, 9/2014-8/2016, 560.000€ from Tekes and companies
- Medical MEMS Valley, 9/2015-6/2018, 1 230.000€ from Tekes and companies
- New Cardiac Measurement Method, 1/2015-6/2016, 375.000€ from Tekes
- NoStrokes: Automated Detection of atrial fibrillation via an miniature accelerometer, 9/2015-8/2019, 535.525€ from Academy of Finland

## **7. Leadership and supervision experience**

- Research team co-leader, since 1.9.2017, currently superior to six employees
- Supervision of doctoral theses (official secondary supervisor)
  - Nosiba Khougali, University of Turku, Faculty of Science and Engineering / Imagineering institute Malaysia, ongoing, estimated graduation 2022
  - Erkki Laurikainen, University of Turku, Faculty of Medicine, ongoing, estimated graduation 2021
  - Saeed Mehrang, University of Turku, Faculty of Science and Engineering, ongoing, estimated graduation 2020
- Supervision of Master's theses (official secondary supervisor)
  - Xin Wen, University of Turku / Fudan University (China), ongoing, estimated graduation 2019
  - Yiheng Wang, University of Turku / Fudan University (China), ongoing, estimated graduation 2020
  - Tuukka Panula, University of Turku, ongoing, estimated graduation 2019
  - Li Yihui, University of Turku, Faculty of Science and Engineering / Fudan University (China), 6/2018
  - Juho Koskinen, University of Turku, 5/2018
  - Mojtaba Jafari Tadi, Åbo Akademi University, 2/2014
  - Kati Virtanen, University of Turku, 12/2004

## **8. Teaching experience**

- All of the following at the University of Turku
- Embedded IoT programming, responsible lecturer, since 2017
- Acquisition and Analysis of Biosignals, responsible lecturer, since 2016
- Course assistant in eight different courses (mostly related to electronics)
  - Planning, implementation and supervision of exercises and projects

## **9. Experience of organising scientific meetings**

- none

## **10. Patents, inventions, awards and honours**

- 14 granted patents (US, CN, JP, FI...), >30 pending patents
- 14 innovation disclosures at University of Turku since 2012
- 3<sup>rd</sup> place in Intoa Turun yliopiston yrittäjyystekopalkinto 2016-2017 (Precordior).

## **11. Other key scientific or academic merits**

- Reviewer to the following international journals
  - IEE Sensors 2018
  - MDPI Sensors 2017
  - IEEE European Conference On Circuit Theory and Design 2005
  - IEEE International Workshop On Cellular Neural Networks and their Applications 2004

## **12. Memberships and positions of trust in scientific societies**

- none