



Allegato B

DICHIARAZIONI SOSTITUTIVE DI CERTIFICAZIONI
(art. 46 D.P.R. n. 445/2000)

DICHIARAZIONI SOSTITUTIVE DELL'ATTO DI NOTORIETÀ
(art. 47 D.P.R. n. 445/2000)

La sottoscritta

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Visto il D.P.R. 28 dicembre 2000, n. 445 concernente “T.U. delle disposizioni legislative e regolamentari in materia di documentazione amministrativa” e successive modifiche ed integrazioni;

Vista la Legge 12 novembre 2011, n. 183 ed in particolare l’art. 15 concernente le nuove disposizioni in materia di certificati e dichiarazioni sostitutive (*);

Consapevole che, ai sensi dell’art.76 del DPR 445/2000, le dichiarazioni mendaci, la falsità negli atti e l’uso di atti falsi sono punite ai sensi del Codice penale e delle leggi speciali vigenti in materia, dichiara sotto la propria responsabilità:

che quanto dichiarato nel seguente curriculum vitae et studiorum
comprensivo delle informazioni sulla produzione scientifica
corrisponde a verità

(*) ai sensi dell’art. 15, comma 1 della Legge 12/11/2011, n. 183 le certificazioni rilasciate dalla P.A.in ordine a stati, qualità personali e fatti sono valide e utilizzabili solo nei rapporti tra privati; nei rapporti con gli Organi della Pubblica Amministrazione e i gestori di pubblici servizi. i certificati sono sempre sostituiti dalle dichiarazioni sostitutive di certificazione o dall’atto di notorietà di cui agli artt. 46 e 47 del DPR 445/2000

Torino, 26/10/2022

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Curriculum Vitae of Kristen M. Meiburger

Current Position

Tenure-track Assistant Professor of Biomedical Engineering at the Department of Electronics and Telecommunications, Politecnico di Torino, Torino, Italy, since February 2022.

Education and Academic Career

2010	Master Degree in Biomedical Engineering at the Politecnico di Torino
2011 (Jan) – 2011 (Dec)	Research Assistant in Biomedical Engineering at the Politecnico di Torino
2012 (Jan) – 2014 (Dec)	Ph.D. in Biomedical Engineering, Scuola Interpolitecnica di Dottorato, Politecnico di Torino
2015 (Jan) – 2016 (Mar)	Scholarship holder in Biomedical Engineering at the Politecnico di Torino
2016 (Mar) – 2018 (July)	Post-Doc Research Assistant in Biomedical Engineering at the Politecnico di Torino
2018 (July) – 2021 (Dec)	Non tenure-track Assistant Professor in Biomedical Engineering at the Politecnico di Torino
2021 (Dec) – 2022 (Jan)	Research Assistant in Biomedical Engineering at the Politecnico di Torino

Activities in International Research Groups

2013 (Oct) – 2014 (Apr)	Visiting Ph.D. student under the Scuola Interpolitecnica di Dottorato program, Ultrasound Imaging and Therapeutics Research Laboratory - Biomedical Engineering - Cockrell School of Engineering - University of Texas at Austin
2015 (Apr – May , Aug – Sep)	Visiting Researcher under the project: "the AgiNg AoRta: from morphometry to hemodynamics (ANARcHY)", Biomedical Simulation Laboratory - Mechanical and Industrial Engineering – University of Toronto

Research Interests

Prof. Kristen Meiburger is mainly active in the field of biomedical image processing, with a main focus on vascular imaging and radiomics. She is also active in the field of biomedical signal processing and, particularly, in ultrasound image beamforming methods and in the analysis of near infra-red spectroscopy signals in dermatological applications.

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Image processing – Prof. Meiburger is a main investigator of the Image Processing division of the Biolab at the Politecnico di Torino. Her main activity focus is the development of quantitative algorithms using traditional image processing and deep learning methods for the extraction and characterization of morphological and architectural parameters of vessel networks using various imaging methods, radiomics analysis of both clinical and simulated ultrasound images, and dermatology image analysis. The main applications are:

- *Ultrasound cardiovascular, ocular, and musculoskeletal imaging*: automated measurement of the intima-media thickness of the carotid artery; non-invasive characterization of atherosclerotic plaque; automated measurement and analysis of the optic nerve and optic nerve sheath; automatic segmentation of muscles in longitudinal and transversal B-mode images.
- *Cancer/Lesion vascular imaging*: quantification of the vascular pattern of cancer lesions using contrast-enhanced ultrasound imaging; quantification of the vascular pattern and network in photoacoustic imaging with no contrast agent; quantification of the vascular network using non-invasive optical coherence tomography angiography and photoacoustic imaging.
- *Radiomics*: quantitative texture analysis of both clinical and simulated ultrasound images for distinguishing between healthy and pathological tissues in various locations (musculoskeletal/tendon, liver, thyroid); quantitative evaluation of ultrasound texture features and their robustness.
- *Dermatology image analysis*: automated segmentation and classification of dermatology images acquired with clinical dermatoscopes and smartphone microscopes.

Signal Processing – Prof. Meiburger has recently focused some of her research in the field of biomedical signal processing, specifically on the analysis of near-infrared spectroscopy signals and beamforming techniques in ultrasound image formation. The main applications in this field are:

- Evaluation of the evolution of non-melanoma skin cancers based on the analysis of quantitative time and frequency features.
- Analysis of beamforming techniques and their influence in image texture and segmentation techniques.
- Development of deep learning methods for the simultaneous beamforming of the ultrasound image and segmentation of specific structures of interest

Editorial involvement:

Prof. Meiburger is on the Editorial Board of the following scientific peer-reviewed journals:

- Computers in Biology and Medicine – IF 4.589
- Computer Methods and Programs in Biomedicine Update – released in 2020
- Frontiers in Photonics - Biophotonics – released in 2021

Funded projects:

Prof. Meiburger is the principal investigator of the Politecnico di Torino unit within a Horizon 2020 project that was recently funded with a start date of 01/01/2021: *Revealing drug tolerant persister cells in cancer using contrast enhanced optical coherence and photoacoustic tomography (REAP)* – call H2020-ICT-2020-2, Project number 101016964.

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National Academic Qualification (Abilitazione Scientifica Nazionale):

Prof. Meiburger obtained the National Academic Qualification (Abilitazione Scientifica Nazionale) as Associate Professor on July 16, 2020, with expiration date July 16, 2029.

Publications

Prof. Meiburger has published more than 70 contributions including journal papers and peer reviewed proceedings in the field of signal and image processing. A complete list of Prof. Meiburger's publications can be found at the following link:

<https://iris.polito.it/cris/rp/rp12225?open=all#.XLWdu5MzZ24>

Prof. Meiburger's updated Google Scholar profile can be found at the following link:

<https://scholar.google.it/citations?user=JrPilPgAAAAJ&hl=en>

Scopus Summary:

H-index	Total number of citations	Total number of publications
21	960	<ul style="list-style-type: none">- 48 peer-reviewed articles- 16 conference papers- 9 book chapters- 6 reviews- 2 editorials

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