

Cihan Göksu

Danish Research Centre for Magnetic Resonance, Centre for Functional and Diagnostic Imaging and Research, Copenhagen University Hospital, Hvidovre/DENMARK

Phone: +45 22 74 22 11, e-mail: cihang@drcmr.dk, cigok@elektro.dtu.dk

Education

- **BSc:** Middle East Technical University (METU), Electrical and Electronics Engineering (EEE) Department (**CGPA:** 3.27 / 4.00, **Date:** 03/07/2011)
- **MSc:** METU, EEE Dep.
Thesis Project: A programmable electrical current source design for Magnetic Resonance Current Density Imaging (MRCDI) and MR Electrical Impedance Tomography (MREIT), and realization of MRCDI at 3 Tesla. (**CGPA:** 3.86 / 4.00, **Date:** 7/02/2014)
- **PhD:** Technical University of Denmark (DTU), DTU Elektro, Center for Magnetic Resonance (CMR) and Hvidovre Hospital, Danish Research Center for Magnetic Resonance (DRCMR)
Project Topic: A novel MRI Approach for measuring weak electrical currents inside the human brain. (**Date:** 06/12/2017)

Work Experience

- **Intern,** SELEX Communication, Electronics Design Dep., Ankara, TURKEY (**Date:** June-July 2009)
- **Intern,** ASELSAN, Defense Systems Technologies Dep, Ankara, TURKEY (**Date:** Aug-Sep 2009)
- **Part-time engineer,** ASELSAN, Electronics Warfare Dep., Ankara, TURKEY (**Date:** Oct 2010-July 2011)
- **Electronics engineer,** ASELSAN, Electronics Warfare Dep., Ankara, TURKEY (**Date:** July-Sep 2011)
- **Teaching Assistant,** METU, EEE Dep., MRI Laboratory, Ankara, TURKEY (**Date:** Sep 2011- Aug 2014)
- **PhD Student,** DTU, DTU Elektro, CMR Dep., Lyngby/DENMARK and Hvidovre Hospital, DRCMR, Hvidovre/DENMARK (**Date:** Sep 2014 – Aug 2017)
- **PhD Student (external research stay),** Max Planck Institute for Biological Cybernetics, High-Field Magnetic Resonance, Tübingen/GERMANY (**Date:** Aug 2015 – Feb 2016)
- **Post-doctoral researcher,** DTU, DTU Elektro, CMR Dep., Lyngby/DENMARK and Hvidovre Hospital, DRCMR, Hvidovre/DENMARK (**Date:** Sep 2017 – present)

Scientific Focus

- Magnetic resonance imaging method development
- Transcranial current stimulation
- MR current density imaging
- MR electrical impedance tomography

Selected Certificates

- IDEA Sequence Programming MR8SDE, SIEMENS, Cary NC/USA, 2015
- ESMRMB MRI Simulation for Sequence Development Course, Copenhagen, DENMARK, 2015

Oral Presentations

- MEDICON, Sevilla, SPAIN, 2013
- ESMRMB, Vienna, AUSTRIA, 2016
- ISMRM, Paris, FRANCE, 2018.
- ECMP, Copenhagen, DENMARK, 2018

Awards and Grants

- ESMRMB Student Grant, 2016, Vienna, AUSTRIA, 2016
- ISMRM Student Stipend, 2017; ISMRM Certificate of Participation, Honolulu HI/USA, 2017
- ISMRM Trainee (Educational) Stipend, Paris, FRANCE, 2018.
- TÜBITAK–2224 Stipend for Scientific Events Abroad, 2013
- The ISMRM Magna Cum Laude Merit Award, Joint Annual Meeting ISMRM-ESMRMB 16-21 June 2018.
- Lundbeckfonden – International Postdoc Grant (PI). 2.100.00 DKK (281.570 Euros) for 3 years, 2018.

Publications

Abstracts:

- [1] **C. Göksu**, M. Sadighi, and B. M. Eyüboğlu, “Minimum Measurable Current Density with MRCDI at 3 Tesla,” in International Symposium on Biomedical Imaging 2014.
- [2] **C. Göksu**, L. G. Hanson, P. Ehses, K. Scheffler, and A. Thielscher, “Efficiency Analysis of Magnetic Field Measurement for MR Electrical Impedance Tomography (MREIT),” in *ESMRMB*, 2016, vol. 29, no. 1, p. 154.
- [3] **C. Göksu**, L. G. Hanson, P. Ehses, K. Scheffler, and A. Thielscher, “Human In-Vivo MR Current Density Imaging (MRCDI) Based on Optimized Multi-echo Spin Echo (MESE),” in ISMRM, 2017.
- [4] **C. Göksu**, L. G. Hanson, H. R. Siebner, P. Ehses, K. Scheffler, and A. Thielscher, “Comparison of two alternative sequences for human in-vivo brain MR Current Density Imaging (MRCDI),” in ISMRM, 2018.
- [5] **C. Göksu**, L. G. Hanson, H. R. Siebner, P. Ehses, K. Scheffler, and A. Thielscher, “Human In-vivo Brain MR Current Density Imaging (MRCDI) based on Steady-state Free Precession Free Induction Decay (SSFP-FID),” in ISMRM, 2018.
- [6] **C. Göksu**, L. G. Hanson, H. R. Siebner, P. Ehses, K. Scheffler, and A. Thielscher, “Human in-vivo Magnetic Resonance Current Density Imaging (MRCDI) and MR Electrical Impedance Tomography (MREIT)” in ECMP, 2018.

Conference Proceedings:

- [1] **C. Göksu**, B. M. Eyüboğlu, and H. H. Eroğlu, “A Programmable Current Source for MRCDI & MREIT Applications,” in XIII Mediterranean Conference on Medical and Biological Engineering and Computing 2013 IFMBE Proceedings, 2014, pp. 198–201.
- [2] H. H. Eroğlu, B. M. Eyüboğlu, and **C. Göksu**, “Design and implementation of a bipolar current source for MREIT applications,” in XIII Mediterranean Conference on Medical and Biological Engineering and Computing 2013 IFMBE Proceedings, 2014, no. 2, pp. 161–164.
- [3] **C. Göksu**, M. Sadighi, H. H. Eroğlu, and B. M. Eyüboğlu, “Realization of Magnetic Resonance Current Density Imaging at 3 Tesla,” in 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2014.
- [4] M. Sadighi, **C. Göksu**, and B. M. Eyüboğlu, “J-Based Magnetic Resonance Conductivity Tensor Imaging (MRCTI) at 3T,” in 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2014.

Peer-reviewed Journal Papers:

- [1] **C. Göksu**, K. Scheffler, P. Ehses, L. G. Hanson, and A. Thielscher, “Sensitivity Analysis of Magnetic Field Measurements for Magnetic Resonance Electrical Impedance Tomography (MREIT),” *Magn. Reson. Med.*, vol. 79, no. 2, pp. 748–760, 2017.
- [2] **C. Göksu**, L. G. Hanson, H. R. Siebner, P. Ehses, K. Scheffler, and A. Thielscher, “Human In-vivo Brain Magnetic Resonance Current Density Imaging (MRCDI),” *Neuroimage*, vol. 171, pp. 26–39, 2018.