Yasser Khan

Assistant Professor, Electrical and Computer Engineering, University of Southern California
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Training / Education

Postdoctoral Scholar in Chemical Engineering
Sensor Systems, Advisor: Prof. Zhenan Bao; Co-Advisor: Prof. Boris Murmann.
Stanford University, CA, USA
Jan '19–Dec '21

Ph.D. in Electrical Engineering and Computer Sciences
GPA 3.95/4.00, Physical Electronics. Advisor: Prof. Ana Arias.
University of California, Berkeley, CA, USA
Dec '18

M.S. in Electrical Engineering
GPA 3.92/4.00, Optoelectronics and Photonics. Advisor: Prof. Boon Ooi
KAUST, KSA
Dec '12

B.S. in Electrical Engineering
GPA 3.98/4.00, Summa Cum Laude, Electronics and Materials Science.
University of Texas at Dallas, TX, USA
May '10

Experience

Assistant Professor of Electrical and Computer Engineering
Electronic Devices, Circuits, and Systems
University of Southern California, CA, USA
Jan '22–Present

- Awards: 2025 AFOSR YIP, 2024 Packard Fellowship, 2023 Google Research Award
- Students: 9 PhD (6 ECE 3 BME), 10 MS, 29 undergraduate students (total in 3 years).
- Funding: $2.5M (2022-2024, $6.5M total) from NIH, DoD, Packard Foundation, Google, Pratt & Whitney Institute for Collaborative Engineering, Schlumberger Foundation, USC Zumberge.
- Teaching: Developed 2 new courses – Introduction to Electrical Engineering (EE105) and Bioelectronics (EE599).

Research Intern
Dye-sensitized solar cells, Advisors: James Kirkpatrick and Prof. Henry Snaith.
Oxford University, OX, UK
Jul '11–Aug '11

Hardware Design Intern
Computer controlled electrochemical etcher to produce extremely sharp tips for use in STM
Zyvex Labs, TX, USA
Jan '10–Jun '10

Selected Awards / Honors

- Air Force Office of Scientific Research Young Investigator Award *2025*
- USC Viterbi School of Engineering Junior Faculty Research Award *2025*
- Packard Fellowship *2024*
- IEEE Senior Membership *2024*
- USC Zumberge Award *2024*
- Google Research Award *2023*
- Best Poster Award, Flex 2018 Conference, Monterey, CA, USA *2018*
- Best Project Award, Systems On Nanoscale Information fabriCs (SONIC) Meeting, Urbana, IL, USA *2017*
- Best Oral Presentation Award, MRS Fall Meeting, Boston, MA, USA *2015*

Publications

[1] **Yasser Khan**, Donggeon Han, Adrien Pierre, Jonathan Ting, Xingchun Wang, Claire M Lochner, Gianluca Bovo, Nir Yaacobi-Gross, Chris Newsome, Richard Wilson, and Ana C Arias. A flexible organic reflectance oximeter array. **Proceedings of the National Academy of Sciences**, 115(47):E11015–E11024, 2018. doi: 10.1073/pnas.1813053115. URL http://dx.doi.org/10.1073/pnas.1813053115. **Media coverage: Physics World, UC Berkeley News Center, KCBS Radio, Innovators Magazine, The Engineer (UK), Medgadget, ScienceDaily, and many more.**

[2] Angsagan Abdigazy, Mohammed Arfan, June Shao, Mohammad Shafiqul Islam, Md Farhad Hassan, and **Yasser Khan**. 3d gas mapping in the gut with ai-enabled ingestible and wearable electronics. **Cell Reports Physical Science**, 2024. doi: 10.1016/j.xcrp.2024.101990. URL http://dx.doi.org/10.1016/j.xcrp.2024.101990. **Media coverage: USC News, Interesting Engineering, Neuroscience News, and many more.**

[3] Claire M Lochner*, **Yasser Khan***, Adrien Pierre*, and Ana C Arias. All-organic optoelectronic sensor for pulse oximetry. **Nature communications**, 5:5745, 2014. doi: 10.1038/ncomms6745. URL http://dx.doi.org/10.1038/ncomms6745. ***Equal contribution. Media coverage: UC Berkeley Grad News, NSF Science 360 News, UC Berkeley News Center, Phys.Org, ScienceDaily, MSN News, Yahoo News, and many more.**

[4] **Yasser Khan***, Felippe J Pavinatto*, Monica C Lin, Amy Liao, Sarah L Swisher, Kaylee Mann, Vivek Subramanian, Michel M Maharbiz, and Ana C Arias. Inkjet-printed flexible gold electrode arrays for bioelectronic interfaces. **Advanced Functional Materials**, 26(7):1004–1013, 2016. doi: 10.1002/adfm.201503316. URL http://dx.doi.org/10.1002/adfm.201503316. **Cover article.**

[5] **Yasser Khan**, Aminy E Ostfeld, Claire M Lochner, Adrien Pierre, and Ana C Arias. Monitoring of vital signs with flexible and wearable medical devices. **Advanced Materials**, 28(22):4373–4395, 2016. doi: 10.1002/adma.201504366. URL http://dx.doi.org/10.1002/adma.201504366.

Please check Google Scholar for the most up-to-date publications list.

IEEE Services

- 2025 Track Chair: IEEE International Conference on Flexible, Printable Sensors and Systems (FLEPS 2025)
- 2024 Session Chair IEEE IFETC
- 2022 Subcommittee Member for IFETC 2022 in San Jose
- 2022 Subcommittee Member for IEEE FLEPS 2022 in Boston
- Associate Editor (2021-2022) IEEE Photonics Journal
- Reviewer: Nature, Nature Electronics, Nature Communications, Proceedings of the National Academy of Sciences, PNAS, Science Advances, ACS Nano, IEEE Sensors Journal, IEEE Sensors Letters, IEEE Transactions of Electron Devices, and many others.