Academic Vita of Andreas Springer, DI Dr., Univ.-Prof.

Personal information, address, web site

Date of birth: 13.03.1966
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Address:
Communications Engineering Group
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Johannes Kepler University Linz (JKU)
Altenberger Straße 69, Linz, 4040
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Main areas of research

Wireless communication systems, architectures and algorithms for multi-band/multi-mode transceivers, wireless sensor networks

Academic career

Andreas Springer is a Full Professor and head of the Institute for Communications Engineering and RF-Systems, Johannes Kepler University (JKU) Linz, Austria. He received the Ph.D. and Habilitation degree from JKU Linz in 1996 and 2001, respectively. He serves as a Research Area Coordinator in the Austrian K2 Center for Symbiotic Mechatronics. Since 2017 he is co-leader (together with Prof. Mario Humer) of the "Christian Doppler Lab for Digitally Assisted RF Transceivers for Future Mobile Communications". He has authored one book, 2 book chapters and more than 290 papers that appeared in journals and in international conference proceedings.

Prizes/awards received (selection)

- Science prize of the German Aerospace Center (DLR) 2006 (co-recipient)

Most important research projects funded in the past

- Intelligent Secure Trustable Things (InSecTT) ECSL Project (European Commission), project leader at NTHFS, June 2020 – May 2023
- Christian Doppler Laboratory for Digitally Assisted RF Transceivers for Future Mobile Communications with former company partner Intel, now Apple, Co-Leader (together with Pro. Mario Huemer, JKU), January 2017 – December 2023
- Secure COnnected Trustable Things (SCOTT) ARTEMIS Project (Euro-pean Commission), project leader at NTHFS, May 2017 – June 2020
- Flexible Autonome Sensorik in industriellen Anwendungen (FASAN), FFG Project (Produktion der Zukunft), project leader at NTHFS, March 2016 – January 2019
- Dependable Embedded Wireless Infrastructure (DEWI) ARTEMIS Pro-ject (European Commission), project leader at NTHFS, March 2014 – February 2017

Peer review activities

Reviewer for various international conferences and journals such as, IEEE Transactions on Communications, IEEE Transactions on Signal Processing, IEEE Communications Letters, IEEE Sensors Journal, IEEE Wireless Communications Letters, IEEE Microwave and Wireless Components Letters, IEEE Industrial Informatics, IEEE Industrial Electronics, IEEE Transactions on Circuits and Systems I and II, EURASIP Journal on Advances in Signal Processing, IEEE Access, IEEE International Communications Conference (ICC), IEEE Globecom, IEEE International Symposium on Circuits and Systems (ISCAS), IEEE Wireless Communications and Networking Conference (WCNC), IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), etc.

Editorships and/or memberships in academic organisations

- Member of the editorial board of the International Journal of Electronics and Communications (2012 to 2019)
- Chair of the IEEE Austrian Joint COM/MTT Chapter (2002 to 2012)
- Vice-Chair of the IEEE Austrian Joint COM/MTT Chapter (since 2013)
- Member of the IEEE Communication Society, IEEE Microwave Theory and Techniques Society, IEEE Circuits and Systems Society, IEEE Vehicular Technoogy Society and the IEEE COMSOC Radio Communications Committee (RCC)

Supervision activities

Andreas Springer has supervised 24 PhD students and numerous master and bachelor students. Currently 11 PhD students work towards their PhD degree under his guidance.

Names and institutions of key international cooperation partners (selection)

- Prof. Mikko Valkama, Tampere University, Tampere Finland
- Prof. Roman Marsalek, Brno Universty of Technology, Brno, Czeck Republic
- Prof. Henk Wymeersch, Chalmers Univesity, Gothenborg, Sweden
- Prof. Marco Di Renzo, University Paris-Sud, Paris, France

Publications overview

Andreas Springer has published more than 300 papers.

Publications	305
Journal Papers	65
Conference papers	237
Book Chapters	2
Book	1

10 most important publications (sorted by year)

[1] P. Peterseil, B. Etzlinger, D. Märzinger, R. Khanzadeh, and A. Springer, "Data Trustworthiness for UWB Ranging in IoT," in *Globecom Workshops*, IEEE, Dec. 2022, pp. 1–6.

[2] P. Peterseil, D. Märzinger, B. Etzlinger, and A. Springer, "Labeling for UWB Ranging in Weak NLOS Conditions," in *2022 International Conference on Localization and GNSS (ICL-GNSS)*, IEEE, 2022, pp. 1–6.

[3] J. Karoliny, T. Blazek, F. Ademaj, A. Springer, and H.-P. Bernhard, "Time Slotted Multi Hypothesis Interference Tracking in Wireless Networks," *IEEE Internet of Things Journal*, 2022, early access. DOI: 10.1109/JIOT.2022.3204820.

[4] E. Dehmollaian, B. Etzlinger, N. B. Torres, and A. Springer, "DL-Based Physical Tamper Attack Detection in OFDM Systems with Multiple Receiver Antennas: A Performance–Complexity Trade-Off," *Sensors*, vol. 22, no. 17, Aug. 2021. DOI: 10.3390/s22176547.

[5] E. Dehmollaian, B. Etzlinger, N. B. Torres, and A. Springer, "Using Channel State Information for Physical Tamper Attack Detection in OFDM Systems: A Deep Learning Approach," *IEEE Wireless Commun. Letters*, 2021. DOI: 10.1109/LWC.2021.3072937.

[6] H.-P. Bernhard, J. Karoliny, B. Etzlinger, and A. Springer, "Work-In-Progress: RSS-Based Presence Detection In Industrial Wireless Sensor Networks," in *16th IEEE Int. Conf. Factory Commun. Systems (WFCS)*, IEEE, 2020, pp. 1–4. DOI: 10.1109/WFCS47810.2020.9114456.

[7] H.-P. Bernhard, A. Zoitl, and A. Springer, "Smart Transducers in Distributed and Model-Driven Control Applications: Empowering Seamless Internet of Things Integration," *IEEE Industrial Electronics Magazine*, vol. 13, no. 4, pp. 57–64, Dec. 2019. DOI: 10.1109/MIE.2019.2936626.

[8] A. Aichhorn, B. Etzlinger, A. Unterweger, R. Mayrhofer, and A. Springer, "Design, implementation, and evaluation of secure communication for line current differential protection systems over packet switched networks," *Int. Journal Critical Infrastructure Protection*, vol. 23, pp. 68–78, 2018. DOI: 10.1016/j.ijcip.2018.06.005.

[9] B. Etzlinger, F. Meyer, F. Hlawatsch, A. Springer, and H. Wymeersch, "Cooperative simultaneous localization and synchronization in mobile agent networks," *IEEE Trans. Sig. Process.*, vol. 65, no. 14, pp. 3587–3602, 2017. DOI: 10.1109/TSP.2017.2691665.

[10] B. Etzlinger, N. Palaoro, W. Haselamyr, B. Rudic, and A. Springer, "Timestamp Free Synchronization with Sub-Tick Accuracy in the Presence of Discrete Clocks," *IEEE Trans. on Wireless Comm.*, vol. 16, no. 2, pp. 771–783, Feb. 2017. DOI: 10.1109/TWC.2016.2630063.