Paul Keller

**Read a paper and research further work**  
  
  
R. Lim, F. Ferrari, M. Zimmerling, C. Walser, P. Sommer and J. Beutel: FlockLab: A Testbed for Distributed, Synchronized

Tracing and Profiling of Wireless Embedded Systems. Proc. 12th Int’l Conf. Information Processing in Sensor Networks

(IPSN), Philadelphia, Pennsylvania, USA, p. 153-165, April 2013.  
  
  
Read the paper listed below

• Identify its main contribution  
First testbed facility for gpio tracing, actuation and high resolution power profiling. Running of multiple services synchronuously.

• Research related work: more recent papers, different approaches, historical background, further work by the authors …

* Mentioned in amongst the 8 earliest of ~30 testbed facilities:  
  Testbed Facilities for IoT and Wireless Sensor Networks: A Systematic Review, Janis Judvaitis \*,† , Valters Abolins † , Amr Elkenawy † , Rihards Balass † , Leo Selavo † and Kaspars Ozols. 2023. According to this paper flockbad was tested with at 106 DUTs (device under test)
* In March 2020 Flocklab2 was anounced and later open source software and hardware provided. Conference paper:  
  FlockLab 2: Multi-Modal Testing and Validation for Wireless IoT Roman Trüb, Reto Da Forno, Lukas Sigrist, Lorin Mühlebach, Andreas Biri, Jan Beutel, Lothar Thiele. 2020. (Prof. Beutel only one still part of the team)

<https://tec.ee.ethz.ch/research/networked-embedded-systems/flocklab.html>

* Flocklab discontinued by now
* Formulated academic initiative: UCLA Wireless Integrated Network Sensors (1993)  
  <https://www.silabs.com/documents/public/white-papers/evolution-of-wireless-sensor-networks.pdf>
* Further work by authors:
  + Location in distributed ad-hoc wireless sensor networks, Chris Savarese, Jan M Rabaey, Jan Beutel. 2001.
  + Wireless sensor networks in permafrost research-concept, requirements, implementation and challenges, Hasler, A; Talzi, I; Beutel, J; Tschudin, C; Gruber, S. 2008.
* Different approach: MOTEL: “DUTs include two different moving robots and a camera, robot movement control” (Testbed Facilities for IoT and Wireless Sensor Networks: A Systematic Review)

• Create a bibliography of further work based on or influenced by this paper that has not been cited yet

• Based on this work

• Inspired by this work

• Competitors

• Case studies

* At least inspired by this work and competitors:Rinalds Ruskuls, Didzis Lapsa, Leo Selavo Signal Processing Laboratory Institute of Electronics and Computer Science Riga, Latvia. **EDI WSN TestBed**: Multifunctional, 3D Wireless Sensor Network Testbed. 2015.
* Maybe inspired, because about synchronized and power monitoring: Robert Falkenberg∗ , Mojtaba Masoudinejad† , Markus Buschhoff‡ , Aswin Karthik Ramachandran Venkatapathy† , Daniel Friesel‡ , Michael ten Hompel† , Olaf Spinczyk‡ and Christian Wietfeld∗, PhyNetLab: An IoT-Based Warehouse Testbed. 2017.