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EDUCATION:
- The University of Sydney, Field Robotics, PhD, 2004
- The Chungnam National University, South Korea, Electronics Engineering, MS/BS, 1999/97

APPOINTMENT HISTORY:
- Lecturer, Department of Engineering, Australian National University, 07/2005 – present
- Postdoctoral Fellow, ARC Centre of Excellence for Autonomous System, 04/2004 – 06/2005
- Research Engineer, R&D Centre, Navicom, South Korea, 12/98 – 03/00

AWARDS:
- The Charles Sharpe Beecher Prize & Award, Institute of Mechanical Engineering (IMechE), UK, 2005
- Best Paper/Presentation Award, International technical meeting of the Satellite Division of the Institute of Navigation (ION): Integrated Navigation Track, USA, 2002

PROFESSIONAL ACTIVITIES:
- Program Committee Member, Australasian Conference for Robotics and Automation, 2008
- Secretary for Australian Robotics and Automation Association (ARAA), 2007— present
- Advanced Tutorials on SLAM Workshops during IROS'05 and ICRA'05.
- Reviewer for IEEE Trans. on Robotics and Automation, ICRA, FSR.

GRANTS:
- Faculties Research Grants Scheme 2006, $6.5K, FEIT, ANU, Project title "Autonomous navigation and data fusion for micro aerial vehicle."
- Major Equipment Grant Scheme 2007, $135K (07ME12), ANU, Project title "Electronics rapid-prototyping facility."

PUBLICATIONS - Book Chapters:
1. **Kim J**., Sukkarieh S., and Wishart, S., "Real-Time Navigation, Guidance and Control of a UAV using Low-Cost Sensors," *Field and Service Robotics: Springer Tracts in Advanced Robotics,* Yuta, S., Asama, H., Thrun, S., Prassler, E., Tsubouchi, T. (Eds.) , Vol 24, Springer, July 2006, ISBN: 3-540-32801-7
2. **Kim J.**, and Sukkarieh S., "Recasting SLAM – Towards Improving Efficiency and Platform Independency", *Robotic Researches: Springer Tracts in Advanced Robotics*, Springer, pp. 399 – 408 Aug 2005, ISBN: 3-540-23214-1
3. Sukkarieh S., Goktogan A., **Kim J.**, Nettleton N., Randle J., Ridley M., Wishart S., Durrant-Whyte H., "Cooperative Data Fusion Amongst Multiple Uninhabited Air Vehicles", *Experimental Robotics VIII*, B. Siciliano & P. Dario (Eds), pp. 190-199, Springer 2003.
4. Goktogan A.H., Sukkarieh S., Iskyldz G., Nettleton E., Ridley M., **Kim J**., Randle J., and Wishart S., "The Real-Time Development and Deployment of a Cooperative Multi-UAV System", Proc. 18th *International Symposium on Computer and Information Sciences*, A. Yazici & C. Sener (Eds.), pp. 576-583, Springer 2003.

PUBLICATIONS - Journals:

5   **Kim J.**, and Sukkarieh S., "Real-time Implementation of Airborne Inertial-SLAM," *Robotics and Autonomous Systems,* Issues 55, Pages 62–71, 2007

6   **Kim J.**, and Sukkarieh S., "6DoF SLAM aided GNSS/INS navigation in GPS denied and unknown environments", *Journal of Global Positioning Systems,* Vol. 4, No. 1-2, Pg. 120-128, Dec. 2005

7   **Kim J.**, Ridley, R., Nettleton E., and Sukkarieh S., "Real-time Experiment of Feature Tracking/Mapping using a low-cost Vision and GPS/INS System on a UAV Platform", *Journal of Global Positioning Systems*, Vol. 3, No. 1-2, Pg. 167-172, Dec. 2004.

8   **Kim J.** and Sukkarieh S., "Autonomous Airborne Navigation in Unknown Terrain Environments." *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 40, No. 3, pp. 1031-1045, July 2004.

9   **Kim J.**, Ong L.L., Nettleton E., and Sukkarieh S., "Decentralised Approach to Unmanned Aerial Vehicle Navigation Without the Use of the Global Positioning System and Preloaded Map", *Journal of Aerospace Engineering, Institute of Mechanical Engineering*, Vol. 218, Part G, pp. 399-416, 2004.

10 Sukkarieh S., Nettleton E., **Kim J.**, Ridley M., Goktogan A., and Durrant-Whyte H., "The ANSER Project: Data Fusion Across Multiple Uninhabited Air Vehicles", *International Journal of Robotics Research*, Vol. 22, No. 7, pp. 505-539, July 2003.

11 **Kim J.**, Moon S.W., Lee S.H., Kim S.H., Hwang D.H., Lee S.J., and Ra S.W., "Implementation of an Initial Alignment Algorithm for a Strapdown Inertial Navigation System", *Journal of Institute of Control, Automation and Systems Engineering,* Vol. 6, No. 2, pp 138–145, February 2000.

12 **Kim J.**, Moon S.W., Kim S.H., Hwang D.H., Lee S.J., Oh M.S., and Ra S.W., "Design of a loosely-coupled GPS/INS integration system", *Journal of the Korea Institute of Military Science and Technology*, Vol. 2, No. 2, pp. 186–196, December 1999. (In Korean)

PUBLICATIONS - Refereed Conferences:

13 Euston, M and **Kim, J.**, "Rao-Blackwellised Inertial-SLAM with Partitioned Vehicle Subspace," *Australasian Conference on Robotics and Automation (ACRA'07)*, Brisbane, Australian, Dec 10-12, 20076. [submitted]

14 **Kim, J**. and Brambley, G., "Dual Optic-flow Integrated Inertial Navigation," *Australasian Conference on Robotics and Automation (ACRA'07)*, Brisbane, Australian, Dec 10-12, 20076. [submitted]

15 **Kim J**. and Sukkarieh S., "Robust Airborne SLAM in Unknown Wind Environments", *IEEE International Conference on Robotics and Automation (ICRA06)*, Orlando, USA, May 15-19, 2006. [Acceptance rate 39%]

16 **Kim J**. and Sukkarieh S., "Towards Robust Airborne SLAM in Unknown Wind Environments," *Australasian Conference on Robotics and Automation (ACRA'05)*, Sydney, Australia, Dec. 5-7, 2005.

17 **Kim J.** and Sukkarieh S., "Complementary SLAM aided GPS/INS Navigation in GNSS Denied and Unknown Environments", *International Symposium on GNSS and GPS*, Sydney, Australia, Dec. 2004.

18 **Kim J.**, Ridley M., Nettleton E. and Sukkarieh S., "Real-time Experiment of Feature Tracking/Mapping using a Vision and low-cost GPS/INS System on an UAV platform." *International Symposium on GNSS/GPS*, Sydney, Australia, 2004.

19 Ong L.L., **Kim J.**, Nettleton E., & Sukkarieh S., "Airborne Decentralised SLAM under Low-Bandwidth Communications," *International Symposium on Intelligent Autonomous Vehicles*, Lisboa, Portugal, 5-7 July, 2004.

20 **Kim J.** and Sukkarieh S., "Improving the Real-time Efficiency of Inertial SLAM and Understanding its Observability," *IEEE/RSJ International Conference on Intelligent Robots and Systems*, pp. 21-26, Sendai, Japan, 2004.

21 L.L. Ong, Ridley M., **Kim J.**, Nettleton E. and Sukkarieh S., "Six DoF Decentralised SLAM," *Australian Conference on Robotics and Automation*, Brisbane, Australia, pp. 10, Dec. 2003,

22 **Kim J.,** and Sukkarieh S., "Recasting SLAM - Towards Improving Efficiency and Platform Independency," *International Symposium on Robotics Research (ISRR'03)*, Siena, Italy, 2003.

23 **Kim J.** and Sukkarieh S., "Airborne Simultaneous Localisation and Map Building," *IEEE International Conference on Robotics and Automation (ICRA'03)*, Vol. 1, pp. 406-411, Taipei, Taiwan, Sept. 2003.

24 Ma X., Sukkarieh S., and **Kim J.,** "Vehicle model aided inertial navigation**.**" *IEEE International Conference on Intelligent Transportation Systems*, Vol. 2, pages 1004-1009, Oct. 2003

25. Kim J. and Sukkarieh S., "A Baro-Altimeter Augmented INS/GPS Navigation System for an Uninhabited Aerial Vehicle", *International Symposium on Satellite Navigation Technology Including Mobile Positioning and Location Services*, Melbourne, Australia, 22-25 July, 2003.

26. Kim J., Sukkarieh S., & Wishart, S., "Real-Time Navigation, Guidance and Control of a UAV using Low-Cost Sensors," *International Conference on Field and Service Robotics*, Yamanashi, Japan, pp. 95-100, 14-16 July, 2003.

27 Goktogan A., Sukkarieh S., G. Isikyildiz, Nettleton E., Ridley M., **Kim J.**, Randle J., and Wishart S., "The Real-time Development and Deployment of a Cooperative Multi-UAV System," *International Symposium on Computer and Information Sciences*, pages 570–577, 2003.

28 Sukkarieh S., Goktogan A., **Kim J.**, Nettleton E., Randle J., Ridley M., Wishart S., and Durrant-Whyte H., "Cooperative Data Fusion amongst Multiple Uninhabited Air Vehicles," *International Conference on Service and Experimental Robotics*, Italy, 2002.

29 **Kim J**., and Sukkarieh S., "Flight Test Results of a GPS/INS Navigation Loop for an Autonomous Unmanned Aerial Vehicle (UAV)," *International Technical Meeting of the Satellite Division of the Institute of Navigation*, Portland, USA, pp.510-517, 24-27 September, 2002.

30 **Kim J.**, Sukkarieh S., Nebot E., and Guivant J., "On the Effects of using Heading Information during In-flight Alignment of a Low-cost IMU/GPS Integrated System," *International Conference of Field and Service Robotics*, pages 55–60, Helsinki, Finland, June 2001.

31 Sukkarieh S., Nebot E., **Kim J**., Stevens M., Grocholsky B., "The Implementation of GPS in Field Robotics," *International Symposium on Satellite Navigation Technology and Applications*, Brisbane, Australia, July, 2001.

32 Moon S.W., **Kim J.,** Kim S.H., Hwang D.H., Lee S.J., Oh M.S., and Ra S.W., "An Implementation of the Loosely-coupled GPS/INS Integration System," *International Symposium on Satellite Navigation*, Brisbane, Australia, 1999.

33 **Kim J.**, Moon S.W., Kim S.H., Hwang D.H., Lee S.J., "SDINS Initial Alignment System using RISC CPU board." *Korean Automatic Control Conference*, Pusan, Korea, Oct. 1998. (In Korean)

34 **Kim J.**, Lee S.H., Moon S.W., Kim S.H., Hwang D.H., Lee S.J., "Loosely-coupled GPS/INS Integration System." *5th GNSS workshop*, Kyungju, Korea, Nov. 1998. (In Korean)

Other Publications:

35 **Kim J.,** *Autonomous Navigation for Airborne Applications*. PhD Thesis, Australian Centre for Field Robotics, The University of Sydney, Australia, 2004.

36 **Kim J.,** *An Implementation of a Loosely-coupled GPS/INS Navigation System*. MS Thesis, Chungnam National University, South Korea 1999.

37 *ANSER Flight Control System*, Internal report to BAE System, Australian Centre for Field Robotics, 2003