Satoshi NAKANO

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DEPARTMENT OF ENGINEERING, GRADUATE SCHOOL OF ENGINEERING, NAGOYA INSTITUTE OF TECHNOLOGY

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Education

Tokyo Institute of Technology *Tokyo, Japan*
PH.D. IN ENGINEERING *Apr. 2015 - Mar. 2019*
- Supervisor: Prof. Mitsuji Sampei

Tokyo Institute of Technology *Tokyo, Japan*
M.ENG *Apr. 2013 - Mar. 2015*
- Supervisor: Prof. Masayuki Fujita

Nagoya Institute of Technology *Nagoya, Japan*
B.ENG *Apr. 2009 - Mar. 2013*
- Supervisor: Prof. Naoki Mizuno

Professional Experience

Apr. 2019 - Present	**Assistant Professor**, Department of Engineering, Graduate School of Engineering, Nagoya Institute of Technology
Sep. 2017 - Sep. 2018	**Visiting Ph.D.**, Service d'Automatique et d'Analyse des Systèms, Université Libre de Bruxelles. Host: Prof. Emanuele Garone. This stay was supported by Wallonie-International Bruxelles.

Publications

JOURNAL ARTICLES

[1] Kou Miyamoto, Jinhua She, Daiki Sato, Yinli Chen, Razelle Dennise A. Soriano, and **Satoshi Nakano**. Wind-load estimation for seismically isolated building by equivalent-input-disturbance approach with robust-control strategy. *Control Engineering Practice*, 145:105853, 2024.

[2] **Satoshi Nakano**, Tam W. Nguyen, Emanuele Garone, Tatsuya Ibuki, and Mitsuji Sampei. Explicit reference governor on $SO(3)$ for torque and pointing constraint management. *Automatica*, 155:111103, 2023.

[3] Tatsuya Ibuki, **Satoshi Nakano**, Shunsuke Shigaki, and Takeshi Hatanaka. Sampled visual feedback pose estimation and regulation based on camera frame rates. *SICE Journal of Control, Measurement, and System Integration*, 16(1):297–309, 2023.

[4] Kou Miyamoto, **Satoshi Nakano**, Jinhua She, Daiki Sato, Yinli Chen, and Qing-Long Han. Design method of tuned mass damper by linear-matrix-inequality-based robust control theory for seismic excitation. *Journal of Vibration and Acoustics*, 144(4):041008, 2022.

[5] Kou Miyamoto, Jinhua She, **Satoshi Nakano**, Daiki Sato, and Yinli Chen. Active structural control of base-isolated building using equivalent-input-disturbance approach with reduced-order state observer. *Journal of Dynamic Systems, Measurement, and Control*, 144(9):091006, 2022.

[6] Tatsuya Ibuki, **Satoshi Nakano**, Mahato Endou, and Mitsuji Sampei. Pose synchronization for quadrotor networks under fixed general interconnection topology: A passivity approach. *SICE Journal of Control, Measurement, and System Integration*, 11(3):160–168, 2018.

[7] **Satoshi Nakano**, Tatsuya Ibuki, and Mitsuji Sampei. Visual feedback position tracking and attitude analysis of two-wheeled vehicles integrating a target vehicle motion model. *SICE Journal of Control, Measurement, and System Integration*, 10(3):204–213, 2017.

Refereed Conference Proceedings Papers

[8] Kou Miyamoto, Yuta Tomiyoshi, Naoto Yoshida, **Satoshi Nakano**, and Jinhua She. Disturbance rejection using the combination of equivalent-input-disturbance and model-predictive-control methods. In *IECON 2023- 49th Annual Conference of the IEEE Industrial Electronics Society*, pages 1–5, Singapore, Singapore, 2023. IEEE.

[9] Kou Miyamoto, Daiki Sato, Jinhua She, Yinli Chen, and **Satoshi Nakano**. Wind-load estimation with equivalent-input-disturbance approach. In *2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, pages 921–925, Sapporo, Japan, 2022. IEEE.

[10] Kou Miyamoto, Naoto Yoshida, Yuta Tomiyoshi, **Satoshi Nakano**, and Jinhua She. Improving habitability for wind-induced structural vibration by equivalent-input-disturbance approach. In *IECON 2022 – 48th Annual Conference of the IEEE Industrial Electronics Society*, pages 1–6, Brussels, Belgium, 2022. IEEE.

[11] **Satoshi Nakano**, Yuya Hada, and Manabu Yamada. Linearization-based position tracking control of two-wheeled multicopters moving on a wall. In *The 13th Asian Control Conference*, pages 1419–1420, Jeju Island, Korea, 2022.

[12] **Satoshi Nakano**, Tam W. Nguyen, Emanuele Garone, Tatsuya Ibuki, and Mitsuji Sampei. Attitude constrained control on $SO(3)$: An explicit reference governor approach. In *2018 IEEE Conference on Decision and Control (CDC)*, pages 1833–1838, Miami Beach, FL, 2018. IEEE.

[13] Tam Nguyen, **Satoshi Nakano**, Takeshi Hatanaka, Emanuele Garone, and Masayuki Fujita. A distributed reference governor for high-order LTI swarm systems. In *2018 Annual American Control Conference (ACC)*, pages 4925–4930, Milwaukee, WI, 2018. IEEE.

[14] **Satoshi Nakano**, Tatsuya Ibuki, and Mitsuji Sampei. Dynamic visual feedback position tracking of two-wheeled vehicles with a target vehicle motion model. In *2017 IEEE Conference on Control Technology and Applications (CCTA)*, pages 1791–1796, Mauna Lani Resort, HI, USA, 2017. IEEE.

[15] **Satoshi Nakano**, Tatsuya Ibuki, and Mitsuji Sampei. Visual feedback pose tracking control of two-wheeled vehicles with target vehicle motion models. In *2016 55th Annual Conference of the Society of Instrument and Control Engineers of Japan (SICE)*, pages 1070–1075, Tsukuba, Japan, 2016. IEEE.

[16] Junya Yamauchi, **Satoshi Nakano**, Takeshi Hatanaka, Masayuki Fujita, and Satoshi Satoh. Stochastic performance analysis of visual motion observer and experimental verifications. In *2015 10th Asian Control Conference (ASCC)*, pages 1–6, Kota Kinabalu, 2015. IEEE.

International Awards

2016	**Finalist of SICE Annual Conference Young Author's Award**, The Society of Instrument and Control Engineers
2015	**10th ASCC 2015 Best Paper Prize Award**, Asian Control Association

Domestic Awards

2024	**54th Chubu Chapter Encouragement Award**, The Society of Instrument and Control Engineers
2022	**Center for Innovative Young Researchers Encouragement Award**, Nagoya Institute of Technology
2021	**Center for Innovative Young Researchers Outstanding Award**, Nagoya Institute of Technology
2018	**Japan Joint Automatic Control Conference Outstanding Presentation Award**, The Institute of Systems, Control and Information Engineers

Academic Memberships

- IEEE Control Systems Society
- The Society of Instrument and Control Engineers (SICE)
- The Institute of Systems, Control and Information Engineers (ISCIE)

- The Japan Society of Mechanical Engineers (JSME)
- The Robotics Society of Japan (RSJ)

Language

- Japanese: Native
- English: Fluent
- Spanish: Beginner

Citizenship

- Japanese

Birth Place

- Yamaguchi, Japan