

CURRICULUM VITAE

ISAO ECHIZEN



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Isao Echizen

- ✓ **Director / Professor, Information and Society Research Division, National Institute of Informatics**
- ✓ **Director, Global Research Center for Synthetic Media, National Institute of Informatics**
- ✓ **Professor, Department of Information and Communication Engineering, Graduate School of Information Science and Technology, The University of Tokyo**
- ✓ **Professor, Graduate Institute for Advanced Studies, The Graduate University for Advanced Studies (SOKENDAI)**

Doctoral degree:

2003 **Doctor of Engineering**, Tokyo Institute of Technology

Education:

1991-1995 **Bachelor of Science in Applied Physics**, Tokyo Institute of Technology
1995-1997 **Master of Science in Applied Physics**, Tokyo Institute of Technology

Career (full-time position):

1997-2007 **Research Engineer**, Systems Development Laboratory, Hitachi, Ltd.
2007-2014 **Associate Professor**, Digital Content and Media Sciences Research Division, National Institute of Informatics
2007-2014 **Associate Professor**, Department of Informatics, School of Multidisciplinary Sciences, The Graduate University for Advanced Studies (SOKENDAI)
2014-2017 **Professor**, Digital Content and Media Sciences Research Division, National Institute of Informatics
2014-2023 **Professor**, Department of Informatics, School of Multidisciplinary Sciences, The Graduate University for Advanced Studies (SOKENDAI)
2017-Present **Professor**, Information and Society Research Division, National Institute of Informatics
2017-2019 **Director**, Information and Society Research Division, National Institute of Informatics
2018-2019 **Deputy Director General**, National Institute of Informatics
2019-2020 **Acting Director General / Deputy Director General**, National Institute of Informatics
2019-Present **Professor**, Department of Information and Communication Engineering, Graduate School of Information Science and Technology, The University of Tokyo
2020-2021 **Advisor to the Director General**, National Institute of Informatics

Isao Echizen's CV (As of July 12, 2025)

- 2020-Present **Research Director**, Social Information Technologies to Counter Infodemics (CREST FakeMedia), CREST, Japan Science and Technology Agency (JST)
- 2021-Present **Director**, Information and Society Research Division, National Institute of Informatics
- 2021-Present **Director**, Global Research Center for Synthetic Media, National Institute of Informatics (NII)
- 2022-2023 **Deputy Dean**, School of Multidisciplinary Sciences, The Graduate University For Advanced Studies (SOKENDAI)
- 2023-Present **Professor**, Department of Informatics, Graduate Institute for Advanced Studies, The Graduate University for Advanced Studies (SOKENDAI)
- 2020-Present **Research Director**, SYNTHETIQ X: Research Platform for Defending and Preventing Spread of Fake Information, K Program, Japan Science and Technology Agency (JST)

Career (part-time position):

- 2010 **Visiting Professor**, University of Freiburg, Germany
- 2011 **Visiting Professor**, University of Halle-Wittenberg, Germany
- 2016-2020 **Scientific Research Senior Specialist**, Ministry of Education, Culture, Sports, Science and Technology of Japan
- 2017-2021 **Visiting Professor**, Tsuda University, Japan
- 2017-Present **Visiting Professor**, Joint Support-Center for Data Science Research (ROIS-DS), Japan
- 2020-Present **Japanese representative**, IFIP TC11 (Security and Privacy Protection in Information Processing Systems)
- 2024-Present **Japanese representative**, IFIP

Awards (selected):

- 2009 **Gerd Griesser Award**, the International Medical Informatics Association WG4 Security in Health Information Systems (IMIA SiHIS)
- 2010 **One of the best papers**, the 25th IFIP International Information Security Conference (IFIP SEC 2010)
- 2014 **DoCoMo Mobile Science Award**, Mobile Communication Fund
- 2016 **Award for the Contribution to Culture of Security**, Institute of Information Security
- 2016 **Best paper award**, the 15th IFIP Conference on e-Business, e-Services and e-Society (IFIP I3E2016)
- 2017 **Best paper award**, the 16th IFIP Conference on e-Business, e-Services and e-Society (IFIP I3E2017)
- 2017 **Best paper award**, the 9th IEEE International Workshop on Information Forensics and Security 2017 (WIFS2017)
- 2017 **Fellow**, the Institute of Electronics, Information and Communication Engineers (IEICE)
- 2023 **Best paper award**, The Institute of Electronics, Information and Communication Engineers (IEICE)
- 2023 **BTAS/IJCB 5-Year Highest Impact Award**, IEEE Biometrics Council award at the IEEE International Joint Conference on Biometrics
- 2024 **BTAS/IJCB 5-Year Highest Impact Award**, IEEE Biometrics Council award at the IEEE International Joint Conference on Biometrics

- 2025 **Award for Science and Technology (Research Category), The Commendation for Science and Technology by the Minister of MEXT** [NII Press Release: <https://www.nii.ac.jp/en/news/release/2025/0408.html>]
- 2025 **IEICE Achievement Award** [IEICE Release: https://www.ieice.org/eng_r/awards/2024/achievement_award03.html]

Academic activities (selected):

- 2009-2011 **Editorial Board Member**, Business & Information Systems Engineering (WIRTSCHAFTSINFORMATIK)
- 2010 **Program Co-chair**, the 5th International Workshop on Security (IWSEC2010)
- 2013 **Conference Co-chair**, the 9th International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP2013)
- 2014-2016 **WG Secretary**, IFIP TC8-information systems: WG8.4- E-Business Information Systems: Multi-disciplinary research and practice
- 2014-2016 **Editorial Board Member**, Journal of Innovation in Digital Ecosystems, Elsevier
- 2014-2016 **Associate Editor**, Multidimensional Systems and Signal Processing, Springer
- 2015 **Workshop Co-chair**, Workshop on Privacy by Transparency in Data-Centric Services (PTDCS 2015)
- 2015 **Organizing Co-chair**, International Workshop on Digital-Forensics and Watermarking (IWDW2015)
- 2016 **Program Co-chair**, the 12th IEEE International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP2016)
- 2016-2019 **Member**, Information Forensics and Security Technical Committee (IFS TC), IEEE Signal Processing Society
- 2017-Present **Scientific Board Member**, SBA Research, Austria
- 2018-2020 **Chair**, Multimedia Security and Forensics (MSF) Technical Committee, Asia Pacific Signal and Information Processing Association (APSIPA)
- 2019 **TPC Co-chair**, Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2019 (APSIPA ASC 2019)
- 2020 **TPC Co-chair**, Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2020 (APSIPA ASC 2020)
- 2021-2024 **Member-at-large of the Board of Governors**, Asia Pacific Signal and Information Processing Association (APSIPA)
- 2021-Present **Associate Editor**, EURASIP Journal on Image and Video Processing
- 2021-Present **Associate Editor**, IEEE Transactions on Dependable and Secure Computing
- 2022-Present **Associate Editor**, Journal of Information Security and Applications, Elsevier
- 2025-Present **VP - Institutional Relations and Education Program**, Asia Pacific Signal and Information Processing Association (APSIPA)

Membership: IEICE Fellow, IPSJ Fellow, IEEE Senior Member, APSIPA Member, and ACM Member

Ongoing funded projects (selected):

Isao Echizen's CV (As of July 12, 2025)

- [1] SYNTHETIQ X: Research Platform for Defending and Preventing Spread of Fake Information (K Program), JST K Program, AI Security, **PI: Isao Echizen**, Grant: JPY 500,000,000; December 2024 to November 2025. (Website: <https://research.nii.ac.jp/~iechizen/synthetiq-x/index.html>)
- [2] Cyber Vaccine: Core Technologies to Counter Cyber Threats with Generative AI, JSPS KAKEN-HI, Grant-in-Aid for Scientific Research (A), **PI: Isao Echizen**, Grant: JPY 47,840,000; April 2024 to March 2027.
- [3] Social information technologies to counter infodemics (CREST FakeMedia), JST CREST, Trusted quality AI systems area, **PI: Isao Echizen**, Grant: JPY 305,462,000 (Direct); December 2020 to March 2026. (Website: <http://research.nii.ac.jp/~iechizen/crest-e.html>)

Previous funded projects (selected):

- [1] Platform for multimedia data protection and practical use based on user preferences against spoofing attacks in biometric information, JSPS KAKEN-HI, Grant-in-Aid for Scientific Research (A), **PI: Isao Echizen**, Grant: JPY 42,250,000; April 2016 to March 2018.
- [2] Communication System for Defending against Attacks of Media Clones, JSPS KAKEN-HI, Grant-in-Aid for Scientific Research (S), PI: Noboru Babaguchi, **Co-PI: Isao Echizen**, Grant: JPY 156,910,000; May 2016 to March 2021.
- [3] Platform for Biometric Information Protection to Ensure Personal Convenience and Prevent Spoofing, JSPS KAKEN-HI, Grant-in-Aid for Scientific Research (A), **PI: Isao Echizen**, Grant: JPY 43,160,000; April 2018 to March 2021. Research on master biometric information protection and utilization platform, JSPS KAKEN-HI, Grant-in-Aid for Scientific Research (A), **PI: Isao Echizen**, Grant: JPY 43,160,000; April 2021 to March 2024.

Recent publications (selected):

- [1] F. Waseda, S. Sugawara, and **I. Echizen**, "Quality Text, Robust Vision: The Role of Language in Enhancing Visual Robustness of Vision-Language Models," ACMMM 2025, October 2025.
- [2] F. Waseda, C. C. Chang, and **I. Echizen**, "Rethinking Invariance Regularization in Adversarial Training to Improve Robustness-Accuracy Trade-off," ICLR 2025, April 2025.
- [3] T. Spinde, F. Wu, W. Gaissmaier, G. Demartini, **I. Echizen**, and H. Giese, "Enhancing media literacy: The effectiveness of (Human) annotations and bias visualizations on bias detection," Information Processing & Management, Volume 62, Issue 6, 2025.
- [4] S. Hinterreiter, M. Wessel, F. Schliski, **I. Echizen**, M. E. Latoschik, T. Spinde, "NewsUnfold: Creating a News-Reading Application That Indicates Linguistic Media Bias and Collects Feedback," Proc. of the International AAAI Conference on Web and Social Media (ICWSM 2025), 19 pages, June 2025.
- [5] H. H. Nguyen, J. Yamagishi and **I. Echizen**, "Exploring Self-Supervised Vision Transformers for Deepfake Detection: A Comparative Analysis," IJCB 2024, September, 2024.
- [6] H. Felouat, H. H. Nguyen, T. -N. Le, J. Yamagishi and **I. Echizen**, "eKYC-DF: A Large-Scale Deepfake Dataset for Developing and Evaluating eKYC Systems," IEEE Access, 2024.
- [7] M. Niu, Z. Li, Y. Zhan, H. H. Nguyen, **I. Echizen**, and Y. Zheng, "Physics-Based Adversarial Attack on Near-Infrared Human Detector for Nighttime Surveillance Camera Systems", ACMMM 2023, October 2023.

- [8] C. C. Chang, H. H. Nguyen, J. Yamagishi, and **I. Echizen**, "Cyber Vaccine for Deepfake Immunity," *IEEE Access*, vol. 11, pp. 105027-105039, 2023, doi: 10.1109/ACCESS.2023.3311461., September 2023. **[Number of citations: 14]**
- [9] H. H. Nguyen, T-N. Le, J. Yamagishi, and **I. Echizen**, "Analysis of Master Vein Attacks on Finger Vein Recognition Systems," *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2023)*, 9 pages, January 2023.
- [10] F. Waseda, S. Nishikawa, T-N. Le, H. H. Nguyen, and **I. Echizen**, "Closer Look at the Transferability of Adversarial Examples: How They Fool Different Models Differently," *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2023)*, 9 pages, January 2023. **[Number of citations: 46]**
- [11] T-N. Le, T. Gu, H. H. Nguyen, and **I. Echizen**, "Rethinking Adversarial Examples for Location Privacy Protection," *IEEE International Workshop on Information Forensics and Security, 2022 (WIFS 2022)*, 6 pages, December 2022.
- [12] S. Nishikawa, I. Yamada, Y. Tsuruoka, and **I. Echizen**, "A Multilingual Bag-of-Entities Model for Zero-Shot Cross-Lingual Text Classification," *The SIGNLL Conference on Computational Natural Language Learning (CoNLL 2022)*, 11 pages, December 2022.
- [13] S. Nishikawa, R. Ri, I. Yamada, Y. Tsuruoka, and **I. Echizen**, "EASE: Entity-Aware Contrastive Learning of Sentence Embedding," *The 2022 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2022)*, full paper, 11 pages, July 2022. **[Number of citations: 40]**
- [14] M. Khosravy, **I. Echizen**, and N. Babaguchi (eds.), "Frontiers in Fake Media Generation and Detection," 274 pages, Springer, June 2022.
- [15] H. H. Nguyen, S. Marcel, J. Yamagishi, and **I. Echizen**, "Master Face Attacks on Face Recognition Systems," *IEEE Transactions on Biometrics, Behavior, and Identity Science (IEEE TBIOM)*, vol. 4, no. 3, pp. 398-411, July 2022. **[Number of citations: 26]**
- [16] H. H. Nguyen, J. Yamagishi, and **I. Echizen**, "Capsule-Forensics Networks for Deepfake Detection," Book chapter, *Handbook of Digital Face Manipulation and Detection* (C. Rathgeb, R. Tolosana, R. Vera-Rodriguez, and C. Busch (eds.)), pp. 275-301, Springer, March 2022.
- [17] H. H. Nguyen, M. Kuribayashi, J. Yamagishi, and **I. Echizen**, "Effects of Image Processing Operations on Adversarial Noise and Their Use in Detecting and Correcting Adversarial Images," *IEICE TRANSACTIONS on Information and Systems, Vol.E105-D, No.1*, pp.65-77, January 2022. **[Best paper award]**
- [18] T. V. Bui, M. Cheraghchi, and **I. Echizen**, "Improved non-adaptive algorithms for threshold group testing with a gap," *IEEE Transactions on Information Theory (IEEE TIT)*, vol. 67, pp. 7180-7196, November 2021.
- [19] T-N. Le, H. H. Nguyen, J. Yamagishi, and **I. Echizen**, "OpenForensics: Large-Scale Challenging Dataset For Multi-Face Forgery Detection And Segmentation In-The-Wild," *The International Conference on Computer Vision (ICCV 2021)*, 11 pages, October 2021. **[Number of citations: 106]**
- [20] D. Adelani, H. Mai, F. Fang, H. Nguyen, J. Yamagishi, and **I. Echizen**, "Generating Sentiment-Preserving Fake Online Reviews Using Neural Language Models and Their Human- and Machine-based Detection," *Proc. of the 34th International Conference on Advanced Information Networking and Applications (AINA-2020)*, 12 pages, April 2020 **[Number of citations: 180]**
- [21] T. Yasui, M. Kuribayashi, N. Funabiki, and **I. Echizen**, "Near-optimal detector for binary Tardos code by estimating collusion strategy," *IEEE Transactions on Information Forensics and Security (IEEE TIFS)*, vol.15, pp.2069-2080, November 2019.

- [22] T. V. Bui, M. Kuribayashi, M. Cheraghchi, and **I. Echizen**, "Efficiently Decodable Non-Adaptive Threshold Group Testing," IEEE Transactions on Information Theory (IEEE TIT), 15 pages, September 2019.
- [23] H. Nguyen, F. Fang, J. Yamagishi, and **I. Echizen**, "Multi-task Learning for Detecting and Segmenting Manipulated Facial Images and Videos," Proc. of the 10th IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS 2019), 8 pages, September 2019 [**Number of citations: 606, BTAS/IJCB 5-Year Highest Impact Award in 2023 and 2024**]
- [24] H. Nguyen, J. Yamagishi, and **I. Echizen**, "Capsule-forensics: using capsule networks to detect forged images and videos," Proc. ICASSP 2019, 5 pages, May 2019 [**Number of citations: 854**]
- [25] D. Afchar, V. Nozick, J. Yamagishi, and **I. Echizen**, "MesoNet: a Compact Facial Video Forgery Detection Network," Proc. of the IEEE International Workshop on Information Forensics and Security (WIFS 2018), 7 pages, December 2018 [**Number of citations: 1,876**]
- [26] H. Nguyen, T. Tieu, H. Nguyen-Son, V. Nozick, J. Yamagishi, and **I. Echizen**, "Modular Convolutional Neural Network for Discriminating between Computer-Generated Images and Photographic Images," Proc. of the 13th International Conference on Availability, Reliability and Security (ARES 2018), full paper, pp. 1-10, August 2018 [**Number of citations: 70**]
- [27] H. Nguyen, T. Tieu, H. Nguyen-Son, J. Yamagishi, and **I. Echizen**, "Transformation on Computer-Generated Facial Image to Avoid Detection by Spoofing Detector," Proc. ICME 2018, pp. 1-6, July 2018 [**Top 15% papers**]
- [28] F. Fang, J. Yamagishi, **I. Echizen**, and J. Lorenzo-Trueba, "High-quality nonparallel voice conversion based on cycle-consistent adversarial network," Proc. ICASSP 2018, pp. 5279-5283, April 2018 [**Number of citations: 172**]
- [29] N. Rahmouni, V. Nozick, J. Yamagishi, and **I. Echizen**, "Distinguishing Computer Graphics from Natural Images Using Convolution Neural Networks," Proc. of the 9th IEEE International Workshop on Information Forensics and Security (WIFS 2017), pp. 1-6, December 2017 [**Number of citations: 380**]
- [30] N. Tieu, H. Nguyen, H. Nguyen-Son, J. Yamagishi, and **I. Echizen**, "An Approach for Gait Anonymization using Deep Learning," Proc. of the 9th IEEE International Workshop on Information Forensics and Security (WIFS 2017), pp. 1-6, (December 2017) [**Best paper Award**]

Works & Products (selected):

[1] PrivacyVisor

1. Privacy visor blocks facial recognition software, BBC News, 22 January 2013, <https://www.bbc.com/news/technology-21143017>
2. Privacy visor glasses jam facial recognition systems to protect your privacy, DigInfo, 19 June 2013, <https://www.youtube.com/watch?v=LRj8whKmN1M&t=14s>
3. Privacy visor fools facial recognition, IDG.tv, 21 August 2015, <https://www.youtube.com/watch?v=HbXvZ1XKdWk>
4. Glasses Foil Facial Recognition, CACM, 17 September 2015, <https://cacm.acm.org/news/glasses-foil-facial-recognition/>

[2] BiometricJammer

1. Peace sign selfies could let hackers copy your fingerprints, The Telegraph, 12 January 2017, <https://www.telegraph.co.uk/technology/2017/01/12/peace-sign-selfies-could-let-hackers-copy-fingerprints/>

2. Fingerprint theft points to digital danger, Financial Times, 16 January 2017, <https://www.ft.com/content/446ac29a-dbc1-11e6-9d7c-be108f1c1dce>
 3. Japanese researchers warn of fingerprint theft from 'peace' signs in digital photographs, Reuters, 17 January 2017, <https://www.youtube.com/watch?v=GadXChqJkvc>
- [3] **SYNTHETIQ VISION: Deepfake Video Detector**
1. Activities of National Institute of Informatics in Japan, CACM, 1 July 2023, <https://cacm.acm.org/research/activities-of-national-institute-of-informatics-in-japan/>