

List of research topics for NII International Internship Program 2022 2nd Call

| No. | Research Area | Title of the Research | Website | Name of supervisor | Title of the supervisor | Requirements for Applicants: Master / Ph.D. Student | Total Number of Acceptance per Supervisor | Duration : 2-6months (less than 180days) | Comments |
|---|---|--|---|--------------------|-------------------------|---|---|--|--------------------------|
| 1. Principles of Informatics Research Division | | | | | | | | | |
| P00501 | Discrete Algorithms | Fast similarity string search and their applications | | Takeaki Uno | Professor | Master/Ph.D. | 1 | 2-6months | |
| P01001 | AI and Law | Legal Reasoning | | Ken Satoh | Professor | Ph.D. | 3 | 3 months | only after December 2022 |
| P01002 | AI and Law | Norm Compliance Mechanism | | Ken Satoh | Professor | Ph.D. | 3 | 3 months | only after December 2022 |
| P01003 | AI and Law | Online Dispute Resolution | | Ken Satoh | Professor | Ph.D. | 3 | 3 months | only after December 2022 |
| P01101 | Machine learning | Geometric analysis of machine learning | https://mahito.nii.ac.jp | Mahito Sugiyama | Associate Professor | Ph.D. | 2 | 6 months | |
| P01201 | Artificial Intelligence / Web Informatics | Semantic Web / Linked Data / Linked Open Data | http://lod.ac http://www-kasm.nii.ac.jp/ | Hideaki Takeda | Professor | Master/Ph.D. | 3 | 3-6months | |
| P01202 | Artificial Intelligence / Web Informatics | Social Web / Social Media Analysis / Social Network Analysis | http://www-kasm.nii.ac.jp/ | Hideaki Takeda | Professor | Master/Ph.D. | 3 | 3-6months | |
| P01203 | Artificial Intelligence | Artificial Social Intelligence: building intelligence systems with social knowledge and social interaction | | Hideaki Takeda | Professor | Master/Ph.D. | 3 | 3-6months | |
| P01301 | Software verification | Separation logic | http://research.nii.ac.jp/~tatsuta/index-e.html | Makoto Tatsuta | Professor | Master/Ph.D. | 2 | 2-6months | |
| P02001 | Theoretical Computer Science/Data Mining | Spectral Graph Theory for Hypergraphs and Directed Graphs | https://dl.acm.org/doi/abs/10.1145/3394486.3403248 https://arxiv.org/abs/2106.02353 | Yuichi Yoshida | Professor | Ph.D. | 2 | 6 months | |
| P02002 | Theoretical Computer Science/Data Mining | Sensitivity of Algorithms | https://arxiv.org/abs/1904.03248 https://arxiv.org/abs/2006.04094 https://arxiv.org/abs/2111.02657 | Yuichi Yoshida | Professor | Ph.D. | 2 | 6 months | |
| P02003 | Theoretical Computer Science | Sublinear-time Algorithms | https://arxiv.org/abs/2007.07449 https://arxiv.org/abs/2204.08404 | Yuichi Yoshida | Professor | Ph.D. | 2 | 6 months | |
| P03401 | Machine learning | Human/robot motion prediction using recurrent neural networks | | Taisuke Kobayashi | Assistant Professor | Master/Ph.D. | 2 | 3-6months | |
| P03402 | Machine learning | Robot control using reinforcement/imitation learning | | Taisuke Kobayashi | Assistant Professor | Master/Ph.D. | 2 | 3-6months | |
| P03403 | Robotics | Development of force-reactive robotic system | | Taisuke Kobayashi | Assistant Professor | Master/Ph.D. | 2 | 3-6months | |

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| 2. Information Systems Architecture Science Research Division | | | | | | | | | |
| A00301 | Machine Learning, Deep Learning, Software Engineering, Testing and Debugging | Risk-Aware Debugging Techniques for Deep Neural Networks | http://research.nii.ac.jp/~f-ishikawa/en/lab.html | Fuyuki Ishikawa | Associate Professor | Master/Ph.D. | 4 | 2-6months | |
| A00302 | Software Engineering, Testing and Debugging, Cyber-Physical Systems, AI Systems | Smart Testing and Debugging for Cyber-Physical and Intelligent Systems | http://research.nii.ac.jp/~f-ishikawa/en/lab.html | Fuyuki Ishikawa | Associate Professor | Master/Ph.D. | 4 | 2-6months | |
| A00601 | Wireless and Mobile Networks, Sensing, Signal Processing, Machine Learning | Deep Learning-based wireless network design for Beyond 5G and 6G | http://research.nii.ac.jp/~megkaneko/ | Megumi Kaneko | Associate Professor | Master/Ph.D. | 3 | 4-6months | Required programming skills: Matlab, Python. Basic knowledge in wireless/digital communications and signal processing is required. |
| A00602 | Wireless and Mobile Networks, Sensing, Signal Processing, Machine Learning | Energy efficiency optimization and energy harvesting for IoT massive connectivity | http://research.nii.ac.jp/~megkaneko/ | Megumi Kaneko | Associate Professor | Master/Ph.D. | 3 | 4-6months | Required programming skills: Matlab, Python. Basic knowledge in wireless/digital communications and signal processing is required. |
| A00603 | Wireless and Mobile Networks, Sensing, Signal Processing, Machine Learning | Integrated terrestrial and spatial wireless communications for Beyond 5G and 6G | http://research.nii.ac.jp/~megkaneko/ | Megumi Kaneko | Associate Professor | Master/Ph.D. | 3 | 4-6months | Required programming skills: Matlab, Python. Basic knowledge in wireless/digital communications and signal processing is required. |
| A00604 | Wireless and Mobile Networks, Sensing, Signal Processing, Machine Learning | Intelligent Reflective Surfaces (IRS), beamforming and sensing for exploiting TeraHertz bands towards 6G | http://research.nii.ac.jp/~megkaneko/ | Megumi Kaneko | Associate Professor | Master/Ph.D. | 3 | 4-6months | Required programming skills: Matlab, Python. Basic knowledge in wireless/digital communications and signal processing is required. |
| A00801 | Wireless communications | Machine Learning-aided resource management in beyond 5G and 6G wireless networks | https://klab.nii.ac.jp | Yusheng Ji | Professor | Master/Ph.D. | 2 | 3-6months | Knowledge on wireless communications and experiences in machine learning are preferable. |
| A01701 | Theoretical Computer Science | Categorical Foundation of Model Checking | https://group-mmm.org/~ichiro/ | Ichiro Hasuo | Professor | Master/Ph.D. | 2 | 6 months | <p>## Fixed-point specifications (such as in LTL and modal μ-calculus) have been conventionally studied in terms of finitary and combinatory structures (automata, games, etc.). These observations are recently being transferred to more abstract settings, opening up algorithms and proof methods for new application domains (esp. probabilistic, metric, etc.). There are a number of research questions waiting to be answered, both theoretical and algorithmic.</p> <p>## References: [Komorida, Katsumata, Hu, Klin, Hasuo, LICS'19], [Komorida, Katsumata, Kupke, Rot, Hasuo, LICS'21], [Kori, Hasuo, Katsumata, CONCUR'21], [Kori, Urabe, Katsumata, Suenaga, Hasuo, CAV'22]</p> <p>## Desired: familiarity with mathematical and abstract reasoning used in logic, lattice theory and (possibly) category theory</p> <p>## Interested? Please first write to me (i.hasuo [at] acm.org), with the title "NII Internship"</p> |

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| A01702 | Theoretical Computer Science | Combining local and global propagation in quantitative model checking | https://group-mmm.org/~ichiro/ | Ichiro Hasuo | Professor | Master/Ph.D. | 2 | 6 months | <p>## This topic is on model checking, especially its probabilistic/quantitative extension. We are specifically interested in value iteration, a family of approximate algorithms for quantitative model checking. Usual algorithms with only local propagation face certain challenges, and we have recently shown that those challenges are efficiently mitigated by mixing a right choice of global propagation. The goal is to push the idea further, to other problems and to formalization of theoretical foundations</p> <p>## Reference: [Phalakarn, Takisaka, Haas, Hasuo, CAV'20]. See also the slides for my VeriProP'22 talk.</p> <p>## Desired: familiarity with model checking (see e.g. [Baier & Katoen '08]), logic and automata. Familiarity with graph-theoretic algorithms is appreciated, too</p> <p>## Interested? Please first write to me (i.hasuo[at]acm.org), with the title "NII Internship"</p> |
| A01703 | Theoretical Computer Science | Logical guidance in optimization metaheuristics | https://group-mmm.org/~ichiro/ | Ichiro Hasuo | Professor | Master/Ph.D. | 2 | 6 months | <p>## Many real-world optimization problems have inherent logical and discrete structures, but many optimization metaheuristics (stochastic optimization, hill-climbing, evolutionary computation, etc.) do not make explicit use of such structures. We have used hierarchical optimization frameworks where the upper logical layer guides the lower metaheuristics layer for efficiency and explainability. The goal is to push the idea further in other applications and theoretical foundations.</p> <p>## References: [Zhang, Hasuo, Arcaini, CAV'19], [Zhang, Ernst, Sedwards, Arcaini, Hasuo, EMSOFT'18]</p> <p>## Desired: familiarity with, or eagerness to learn, 1) formal logic, 2) optimization metaheuristics, 3) statistical machine learning</p> <p>## Interested? Please first write to me (i.hasuo[at]acm.org), with the title "NII Internship"</p> |

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| A01704 | Theoretical Computer Science | Logical safety for automated driving | https://group-mmm.org/~ichiro/ | Ichiro Hasuo | Professor | Master/Ph.D. | 2 | 6 months | <p>## Responsibility-sensitive safety (RSS) is a recently proposed methodology for devising mathematically-guaranteed safety rules for automated driving. The candidate will work on its logical foundations and its application to various driving scenarios. The work is much like interactive theorem proving, but with unique theoretical challenges (e.g. continuous dynamics) and a hot application (automated driving).</p> <p>## References: [Hasuo, Eberhart, Haydon, et al., IEEE Trans. Intelligent Vehicles, '22 (available at arXiv)] [Shalev-Shwartz, Shammah, Shashua, arXiv'17]</p> <p>## Desired: familiarity with formal logic and interactive theorem proving, passion in bringing theory to practice</p> <p>## Interested? Please first write to me (i.hasuo [at] acm.org), with the title "NII Internship"</p> |
| A01801 | Computer network | Network security measurement and analysis | http://www.fukuda-lab.org/internship | Kensuke Fukuda | Associate Professor | Master/Ph.D. | 3 | 5-6months | Solid programming (python or C++) and machine learning skills |
| A01802 | Computer network | Network config/log mining | http://www.fukuda-lab.org/internship | Kensuke Fukuda | Associate Professor | Master/Ph.D. | 3 | 5-6months | Solid programming (python) and machine learning skills |
| A01803 | Computer network | Web privacy measurement | http://www.fukuda-lab.org/internship | Kensuke Fukuda | Associate Professor | Master/Ph.D. | 3 | 5-6months | Solid programming skill (python or javascript) |
| A01804 | Computer network | IoT traffic anomaly detection | http://www.fukuda-lab.org/internship | Kensuke Fukuda | Associate Professor | Master/Ph.D. | 3 | 5-6months | Solid programming and machine learning skills |

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| 3. Digital Content and Media Sciences Research Division | | | | | | | | | |
| K00101 | Text Media | Language Models and their applications to assist human activities | http://www-al.nii.ac.jp | Akiko Aizawa | Professor | Master/Ph.D. | 4 | 3-6months | |
| K00102 | Text Media | Deep analysis of scientific papers | http://www-al.nii.ac.jp | Akiko Aizawa | Professor | Master/Ph.D. | 4 | 3-6months | |
| K00103 | Text Media | Mathematical language processing | http://www-al.nii.ac.jp | Akiko Aizawa | Professor | Master/Ph.D. | 4 | 3-6months | |
| K01001 | Digital Humanities | Machine learning for image processing (esp. character recognition), geographic information, linked data and metadata management for cultural heritage | http://agora.ex.nii.ac.jp/~kitamoto/education/internship/ | Asanobu Kitamoto | Professor | Master/Ph.D. | 4 | 3-6months | A student with programming skills and interests in real problems is preferred. |
| K01002 | Earth Environmental Informatics | Big data analytics (esp. image processing, remote sensing and machine learning) for societal problems such as environment and sustainability | http://agora.ex.nii.ac.jp/~kitamoto/education/internship/ | Asanobu Kitamoto | Professor | Master/Ph.D. | 4 | 3-6months | A student with programming skills and interests in real problems is preferred. |
| K01003 | Crisis Informatics | Big data analytics (esp. image processing, natural language processing, and machine learning) for natural disasters and crisis | http://agora.ex.nii.ac.jp/~kitamoto/education/internship/ | Asanobu Kitamoto | Professor | Master/Ph.D. | 4 | 3-6months | A student with programming skills and interests in real problems is preferred. |
| K01004 | Open Science | Research on a new trend of science, such as open data, data citation, citizen science, and open innovation | http://agora.ex.nii.ac.jp/~kitamoto/education/internship/ | Asanobu Kitamoto | Professor | Master/Ph.D. | 4 | 3-6months | A student with programming skills and interests in real problems is preferred. |
| K01401 | Content-Based Image and Video Analysis | video and image search (esp. TRECVID AVS task. see: https://trecvid.nist.gov/) | http://www.satoh-lab.nii.ac.jp/ | Shin'ichi Satoh | Professor | Master/Ph.D. | 5 | 3-6months | |
| K01402 | Content-Based Image and Video Analysis | Automatic question answering about videos (esp. TRECVID Deep Video Understanding (DVU). see: https://trecvid.nist.gov/) | http://www.satoh-lab.nii.ac.jp/ | Shin'ichi Satoh | Professor | Master/Ph.D. | 5 | 3-6months | |
| K01403 | Content-Based Image and Video Analysis | Video/image captioning (esp. TRECVID Video to Text (VTT) task. see: https://trecvid.nist.gov/) | http://www.satoh-lab.nii.ac.jp/ | Shin'ichi Satoh | Professor | Master/Ph.D. | 5 | 3-6months | |
| K01404 | Content-Based Image and Video Analysis | Disaster Scene Analysis (esp. TRECVID Disaster Scene Description and Indexing (DSDI): see https://trecvid.nist.gov/) | http://www.satoh-lab.nii.ac.jp/ | Shin'ichi Satoh | Professor | Master/Ph.D. | 5 | 3-6months | |
| K01405 | Content-Based Image and Video Analysis | Landmark image retrieval, e.g., Google Landmark Image Retrieval https://www.kaggle.com/c/landmark-retrieval-2020 . | http://www.satoh-lab.nii.ac.jp/ | Shin'ichi Satoh | Professor | Master/Ph.D. | 5 | 3-6months | |
| K01601 | Computer Vision | One of the following topics: (1) 3D vision, (2) Human activity recognition, (3) Gaze sensing and navigation, (4) Object detection and segmentation from video using deep learning, and (5) Image/video generation using deep learning | http://www.dgcv.nii.ac.jp | Akihiro Sugimoto | Professor | Master/Ph.D. | 5 | 3-6months | Rigorous background on mathematics is required. Strong programming skills on image processing and computer vision are also required. In the case of Master course students, highly motivated students who can stay for 6 months are preferable. Students who are willing to pursue ph D at NII are preferable as well. Potential applicants should send your CV and research interests/proposals directly to Prof. Sugimoto before your application. |

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| K01602 | Digital Geometry | (1) Discretization model of geometric shape, (2) Discrete shape fitting to noisy integer points. | http://www.dgcv.nii.ac.jp | Akihiro Sugimoto | Professor | Master/Ph.D. | 5 | 3-6months | Rigorous background on mathematics as well as computer vision is required. In particular, sufficient knowledge of linear algebra, graph theory and number theory are important requirements. Programming skills on image processing or computer vision are also required. Potential applicants should send your CV and research interests/proposals directly to Prof. Sugimoto before your application. |
| K01701 | Data Mining | Recommender System | https://www.tlab.nii.ac.jp | Atsuhiko Takasu | Professor | Master/Ph.D. | 4 | 4-6months | |
| K01702 | Data Mining | Knowledge Graph Embedding | https://www.tlab.nii.ac.jp | Atsuhiko Takasu | Professor | Master/Ph.D. | 4 | 4-6months | |
| K01703 | Data Mining | Tabular Data Recognition and Analysis | https://www.tlab.nii.ac.jp | Atsuhiko Takasu | Professor | Master/Ph.D. | 4 | 4-6months | |
| K01704 | Data Mining | Sequence Data Mining | https://www.tlab.nii.ac.jp | Atsuhiko Takasu | Professor | Master/Ph.D. | 4 | 4-6months | |
| K02001 | Algorithms, Simulators, Designs, Token Economy (Web3) | Research and development of algorithms, simulators, and designs for Unmanned Aircraft Systems ("drone") Traffic Management (UTM), including ground risk evaluation | http://research.nii.ac.jp/~prendinger/papers/FY2022(2)_Topics.html | Helmut PRENDINGER | Professor | Master/Ph.D. | 6 | 4-6months | We are participating in a national UTM project, where we develop a "digital twin" of areas in Japan to simulate and study realistic drone traffic. We are also interested in market design based on blockchain and token economy (Web3). |
| K02002 | Deep Learning | (1) High-speed object detectin onboard a drone; (2) ground risk map generation for safe drone flight; (3) human detection in bad weather condition from drone perspective | http://research.nii.ac.jp/~prendinger/papers/FY2022(2)_Topics.html | Helmut PRENDINGER | Professor | Master/Ph.D. | 6 | 4-6months | We are participating in national projects with the Advanced Robotics Foundation and the Central Research Institute of Electric Power Industry. |
| K02003 | Deep Learning | Bitcoin (crypto) market prediction for swing trading | http://research.nii.ac.jp/~prendinger/papers/FY2022(2)_Topics.html | Helmut PRENDINGER | Professor | Master/Ph.D. | 6 | 4-6months | This project uses publicly available sources. We focus on technical analysis and indicators. |
| K02301 | Speech processing | Differentiable digital signal processing with applications to speech audio generation | Relevant but not limited to [1] WaveGrad https://arxiv.org/abs/2009.00713 ; [2] DiffWave https://arxiv.org/abs/2009.09761 ; [3] PriorGrad https://arxiv.org/abs/2106.06406 ; [4] BDDM https://arxiv.org/abs/2203.13508 ; [5] InferGrad https://arxiv.org/abs/2202.03751 [6] Grad-TTS https://arxiv.org/abs/2105.06337 [7] SaShiMi https://arxiv.org/abs/2202.09729 [8] https://arxiv.org/pdf/2203.16749.pdf | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in speech processing, computer science, or a related discipline. He or she should have strong programming skills. Familiarity with DNN tools (e.g., Pytorch) and speech tools are preferable. Supervision teams include Dr. Xin Wang |
| K02302 | Speech processing | Privacy preserving processing for speech signals including automatic generation of speaker-anonymized synthetic speech | Relevant but not limited to [1] https://www.voiceprivacychallenge.org (see 2022 evaluation plan), [2] Tomashenko, N. et al. The VoicePrivacy 2020 Challenge: Results and findings. Comput. Speech Lang. 101362 (2022) doi:10.1016/j.csl.2022.101362 | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in speech processing, computer science, or a related discipline. He or she should have strong programming skills. Familiarity with DNN tools (e.g., Pytorch) and speech tools are preferable. Supervision teams include Dr. Xin Wang and Dr. Xiaoxiao Miao |

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| K02303 | Speech processing | Generalizable and robust fake speech detection | Relevant but not limited to [1] https://www.asvspoof.org [2] Wang, X. & Yamagishi, J. A Practical Guide to Logical Access Voice Presentation Attack Detection. https://arxiv.org/abs/2201.03321 [3] ASVspoof workshop proceeding: https://www.isca-speech.org/archive/asvspoof_2021/index.html | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in speech processing, computer science, or a related discipline. He or she should have strong programming skills. Familiarity with DNN tools (e.g., Pytorch) and speech tools are preferable. Supervision teams include Dr. Xin Wang |
| K02304 | Speech processing | Data-efficient end-to-end speech synthesis | Relevant papers include, but are not limited to: [1] Cheng-I Jeff Lai, Erica Cooper, Yang Zhang, Shiyu Chang, Kaizhi Qian, Yi-Lun Liao, Yung-Sung Chuang, Alexander H. Liu, Junichi Yamagishi, David Cox, James Glass, "On the Interplay Between Sparsity, Naturalness, Intelligibility, and Prosody in Speech Synthesis," ICASSP 2022, and Erica Cooper, Cheng-I Lai, Yusuke Yasuda, Junichi Yamagishi, ""Can Speaker Augmentation Improve Multi-Speaker End-to-End TTS?" Interspeech 2020. | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in speech processing, computer science, engineering, linguistics, mathematics, or a related discipline. He or she should have strong programming skills. Familiarity with DNN tools and speech tools are preferable. Supervision teams include Dr. Erica Cooper |
| K02305 | Music processing | Instrument-specific embedding space for fine-grained timbre control of musical instrument sounds | Relevant papers include, but are not limited to: [1] Xuan Shi, Erica Cooper, Junichi Yamagishi, "Use of speaker recognition approaches for learning and evaluating embedding representations of musical instrument sounds," IEEE/ACM Trans. ASLP, Jan 2022, and Erica Cooper, Xin Wang, Junichi Yamagishi, "Text-to-Speech Synthesis Techniques for MIDI-to-Audio Synthesis." SSW 2021. | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in speech or music signal processing, computer science, or a related discipline. He or she should have strong programming skills and experience with speech and audio processing and/or machine learning. • Familiarity with DNN tools and speech tools are preferable. Supervision teams include Dr. Erica Cooper |
| K02306 | Music processing | Expressive multi-instrument musical performance generation using deep learning | Relevant papers include, but are not limited to: [1] Xuan Shi, Erica Cooper, Junichi Yamagishi, "Use of speaker recognition approaches for learning and evaluating embedding representations of musical instrument sounds," IEEE/ACM Trans. ASLP, Jan 2022, and Erica Cooper, Xin Wang, Junichi Yamagishi, "Text-to-Speech Synthesis Techniques for MIDI-to-Audio Synthesis." SSW 2021. | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in speech or music signal processing, computer science, or a related discipline. He or she should have strong programming skills and experience with speech and audio processing and/or machine learning. • Familiarity with DNN tools and speech tools are preferable. Supervision teams include Dr. Erica Cooper |
| K02307 | Natural language processing | Mitigating shortcut learning | Relevant papers include, but are not limited to: Geirhos et al., Shortcut learning in deep neural networks, Nature Machine Intelligence 2020. | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in natural language processing, computer science/engineering, mathematics, or a related discipline, and familiar with DL frameworks (e.g., PyTorch). Supervision teams include Dr. Canasai Kruengkrai. |
| K02308 | Natural language processing | Cross-lingual representation learning | Relevant papers include, but are not limited to: Conneau et al., Unsupervised cross-lingual representation learning at scale, ACL 2020. | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in natural language processing, computer science/engineering, mathematics, or a related discipline, and familiar with DL frameworks (e.g., PyTorch). Supervision teams include Dr. Canasai Kruengkrai. |
| K02309 | Natural language processing | Fact-checking over structured and unstructured data | Relevant papers include, but are not limited to: Aly et al., FEVEROUS: Fact Extraction and VERification Over Unstructured and Structured information, NeurIPS Datasets and Benchmarks 2021. | Junichi Yamagishi | Professor | Ph.D. | 4 | 4-6months | The successful candidate should be a PhD student in natural language processing, computer science/engineering, mathematics, or a related discipline, and familiar with DL frameworks (e.g., PyTorch). Supervision teams include Dr. Canasai Kruengkrai. |

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| K02601 | Multimedia Data Mining and Analysis | Multimodal deep learning and pre-training models for cross-modal retrieval between audio-video, lyrics-audio, and image-text, multimedia content recommendation | http://research.nii.ac.jp/~vivu/ | Yi YU | Assistant Professor | Master/Ph.D. | 4 | 3-6months | |
| K02602 | Artificial Intelligence and Music | Deep generative models for lyrics-to-melody generation, melody-to-lyrics generation, singing voice synthesis | https://github.com/vy1lab/Lyrics-Conditioned-Neural-Melody-Generation | Yi YU | Assistant Professor | Master/Ph.D. | 4 | 3-6months | |

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| Added | | | | | | | | | |
| As of September 14th, 2022 | | | | | | | | | |
| 4. Information and Society Research Division | | | | | | | | | |
| J00301 | Multimedia forensics | Generation and detection of fake facial videos | http://research.nii.ac.jp/~iechizen/official/research/research5-e.html | Isao Echizen | Professor | Master/Ph.D. | 3 | 3-6months | |
| J00302 | Multimedia security | Generation and detection of adversarial examples | http://research.nii.ac.jp/~iechizen/official/research/research5-e.html | Isao Echizen | Professor | Master/Ph.D. | 3 | 3-6months | |
| J00303 | Multimedia forensics | Image-based fact verification | http://research.nii.ac.jp/~iechizen/crest/en/research.html | Isao Echizen | Professor | Master/Ph.D. | 3 | 3-6months | |
| Revised | | | | | | | | | |
| As of October 12th, 2022 | | | | | | | | | |
| 3. Digital Content and Media Sciences Research Division | | | | | | | | | |
| K00401 | Business intelligence | AI-driven customer intelligence | https://rb.gv/nhwgwe | Frederic ANDRES | Associate Professor | Master/Ph.D. | 3 | 6 months | Collaboration with the largest travel company in Japan |
| K00402 | Data science, esport | Moodflow monitoring Platform as a Service | https://rb.gv/hfbt7s | Frederic ANDRES | Associate Professor | Master/Ph.D. | 3 | 6 months | Collaboration with Sorbonne University |
| K00403 | Education | Ontology based Approach for compliance with privacy protection requirements in Education | http://research.nii.ac.jp/~andres/official/intern2022_ON_SITE_call_3.html | Frederic ANDRES | Associate Professor | Master/Ph.D. | 3 | 6 months | Collaboration with ISO standardisation |