

List of research topics for NII International Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
<b>1. Principles of Informatics Research Division</b>								
1	legal reasoning	juris-informatics, <a href="http://research.nii.ac.jp/~ksatoh/">http://research.nii.ac.jp/~ksatoh/</a>	Ken Satoh	Professor	PhD	2	2-3 months	A basic knowledge of law would be preferable
2	argumentation	Extension of Dung's argumentation scheme, <a href="http://research.nii.ac.jp/~ksatoh/">http://research.nii.ac.jp/~ksatoh/</a>	Ken Satoh	Professor	PhD	2	2-3 months	strong back ground of logical reasoning is needed
3	natural language processing and logical reasoning	Combination of NLP and LR in legal reasoning, <a href="http://shonan.nii.ac.jp/seminar/057/">http://shonan.nii.ac.jp/seminar/057/</a>	Ken Satoh	Professor	PhD	2	2-3 months	one of the back grounds of NLP, LR and Law would be preferable
4	Principles of Informatics	Lambda-Calculus and Type Theory <a href="http://research.nii.ac.jp/~tatsuta/index-e.html">http://research.nii.ac.jp/~tatsuta/index-e.html</a>	Makoto Tatsuta	Professor	Master's or Ph.D students	1	2-6 months	It would be better to know lambda-calculus, type theory, or mathematical logic.
5	Computational Neuroscience	① Data mining of brain data, ② Brain simulation,  Homepage: <a href="http://research.nii.ac.jp/~r-koba/en/index.html">http://research.nii.ac.jp/~r-koba/en/index.html</a>	Ryota Kobayashi	Assistant Professor	Master's or Ph.D students	1~2	4~6 month	Applicants should have a strong interest in applications of information sciences to neuroscience. Basic knowledge of machine learning, optimization, or mathematical engineering will be appreciated.
6	Artificial Intelligence / Web Informatics	Semantic Web / Linked Data / Linked Open Data <a href="http://lod.ac">http://lod.ac</a> <a href="http://www-kasm.nii.ac.jp/">http://www-kasm.nii.ac.jp/</a>	Hideaki Takeda	Professor	Master 's or Ph.D students	3	3-6months	
7	Artificial Intelligence / Web Informatics	Social Web / Social Media Analysis / Social Network Analysis <a href="http://www-kasm.nii.ac.jp/">http://www-kasm.nii.ac.jp/</a>	Hideaki Takeda	Professor	Master 's or Ph.D students		3-6months	
8	Artificial Intelligence / Web Informatics	Semantic Web for Academic Publication, Library and Museum <a href="http://www-kasm.nii.ac.jp/">http://www-kasm.nii.ac.jp/</a> <a href="http://lod.ac">http://lod.ac</a>	Hideaki Takeda	Professor	Master 's or Ph.D students		3-6months	
9	Abduction / Inductive Logic Programming	Discovery by (Meta-Level) Abduction ( <a href="http://research.nii.ac.jp/il/">http://research.nii.ac.jp/il/</a> )	Katsumi Inoue	Professor	Master's or Ph.D students	3	3-6 months	Basic knowledge of Artificial Intelligence or Machine Learning is required. Additionally, some background in Biology, Chemistry, Physics or Social Science is useful. Contact Prof. Inoue in advance.
10	Automated Reasoning / Logic Programming	Answer Set Programming, Constraint Programming, and Satisfiability Testing ( <a href="http://research.nii.ac.jp/il/">http://research.nii.ac.jp/il/</a> )	Katsumi Inoue	Professor	Master's or Ph.D students		3-6 months	Basic knowledge of ASP/CP/SAT and Computer Programming is required. Contact Prof. Inoue in advance.
11	Boolean Networks / System Dynamics	Learning, Modeling and Reasoning of Dynamic Systems ( <a href="http://research.nii.ac.jp/il/">http://research.nii.ac.jp/il/</a> )	Katsumi Inoue	Professor	Master's or Ph.D students		3-6 months	Basic knowledge of Artificial Intelligence is required. Additionally, some background in Biological Modeling, Cellular Automata, Control Theory, Discrete Event Systems, Machine Learning or Model Checking is useful. Contact Prof. Inoue in advance.
12	Multi-Agent Systems	Robust Solutions for (Distributed) Constraint Optimization Problems ( <a href="http://research.nii.ac.jp/il/">http://research.nii.ac.jp/il/</a> )	Katsumi Inoue	Professor	Master's or Ph.D students		3-6 months	Basic knowledge of Artificial Intelligence and Computer Programming is required. Additionally, some background in Game Theory, Multi-Agent Simulation or Multi-Objective Optimization is useful. Contact Prof. Inoue in advance.

List of research topics for NII Intenational Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
13	Numerical Linear Algebra	Application of numerical linear algebra to optimization.( <a href="http://researchmap.jp/KenHayami/?lang=english">http://researchmap.jp/KenHayami/?lang=english</a> )	Ken Hayami	Professor	Ph.D.	1	2-6 months	Knowledge of numerical linear algebra and optimization required.
14	Inverse Problems	Solution of under-determined inverse problems and its application to pharmacokinetic modeling etc. ( <a href="http://researchmap.jp/KenHayami/?lang=english">http://researchmap.jp/KenHayami/?lang=english</a> )	ken Hayami	Professor	Master's or Ph.D students	1	2-6 months	Knowlege of numerical analysis.
15	Airtificial Intelligence	Machine learning method for large scale data <a href="http://ri-www.nii.ac.jp/">http://ri-www.nii.ac.jp/</a>	Ryutaro Ichise	Associate Professor	Master's or Ph.D students	3	3-6 months	
16	Airtificial Intelligence	Data mining method for web data <a href="http://ri-www.nii.ac.jp/">http://ri-www.nii.ac.jp/</a>	Ryutaro Ichise	Associate Professor	Master's or Ph.D students		3-6 months	
17	Quantum computation and communication	Computer architecture for quantum information processing <a href="http://www.qis.ex.nii.ac.jp/">http://www.qis.ex.nii.ac.jp/</a>	Kae Nemoto	Professor	Master's or Ph.D students	2	2-6months	
18	Quantum computation and communication	Quantum devices <a href="http://www.qis.ex.nii.ac.jp/">http://www.qis.ex.nii.ac.jp/</a>	Kae Nemoto	Professor	Master's or Ph.D students		2-6months	
19	Crowd sourcing and quantum computation	Quantum network: protocols and implementation	Kae Nemoto	Professor	Ph.D.	1	2-6months	
20	acoustic signal processing	Source separation or localization based on microphone array <a href="http://www.onn.nii.ac.jp/recruitment-e.html">http://www.onn.nii.ac.jp/recruitment-e.html</a>	Nobutaka Ono	Associate Professor	Master's or Ph.D students	1~4	2-6 months	Basic knowledge of signal processing and programming skill on Matlab are required.
21	acoustic signal processing	Audio information hiding based on phase modification in time-frequency domain <a href="http://www.onn.nii.ac.jp/recruitment-e.html">http://www.onn.nii.ac.jp/recruitment-e.html</a>	Nobutaka Ono	Associate Professor	Master's or Ph.D students		2-6 months	Basic knowledge of signal processing and programming skill on Matlab are required.
22	acoustic signal processing	Spectrogram-based audio coding <a href="http://www.onn.nii.ac.jp/recruitment-e.html">http://www.onn.nii.ac.jp/recruitment-e.html</a>	Nobutaka Ono	Associate Professor	Master's or Ph.D students		2-6 months	Basic knowledge of signal processing and programming skill on Matlab are required.
23	acoustic signal processing	Development of real system or interactive tool for audio signal processing <a href="http://www.onn.nii.ac.jp/recruitment-e.html">http://www.onn.nii.ac.jp/recruitment-e.html</a>	Nobutaka Ono	Associate Professor	Master's or Ph.D students		2-6 months	Basic knowledge of signal processing and programming skill on Matlab are required.

List of research topics for NII International Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
<b>2. Information Systems Architecture Science Research Division</b>								
24	Software Engineering for CPS	Refinement-based System Modeling with Event-B	Shin Nakajima	Professor	Master's or Ph.D students	1~2	2 -6 months	Contact the supervisor for the detailed information before applying the internship program.
25	Software Engineering for CPS	Automatic Verification of Hybrid Systems	Shin Nakajima	Professor	Master's or Ph.D students		2 -6 months	
26	Software Engineering for CPS	Feedback-centered Modeling for Known Unknowns	Shin Nakajima	Professor	Master's or Ph.D students		2 -6 months	
27	Software Engineering	Bidirectional Transformation and Its Application ( <a href="http://research.nii.ac.jp/~hu/">http://research.nii.ac.jp/~hu/</a> , <a href="https://www.birs.ca/events/2013/5-day-workshops/13w5115">https://www.birs.ca/events/2013/5-day-workshops/13w5115</a> )	Zhenjiang Hu	Professor	Master's or Ph.D students	4	2-6months	Intereted in developing practical software systems
28	Programming Languages	Design and Implementation of Bidirectional Functional Languages ( <a href="http://research.nii.ac.jp/~hu/">http://research.nii.ac.jp/~hu/</a> )	Zhenjiang Hu	Professor	Master's or Ph.D students		2-6months	Familiar with functional languages such as Haskell or Ocaml
29	Parallel Programming	Parallel Computing and Bridging Models ( <a href="https://sites.google.com/site/niiinterntopics/">https://sites.google.com/site/niiinterntopics/</a> , <a href="http://research.nii.ac.jp/~hu/">http://research.nii.ac.jp/~hu/</a> )	Zhenjiang Hu	Professor	Master's or Ph.D students		2-6months	Has experiences of writing parallel programs
30	wireless networks	resource management in wireless networks <a href="http://klab.nii.ac.jp/">http://klab.nii.ac.jp/</a>	Yusheng Ji	Professor	Master's or Ph.D students	1	3 or 6 months	Basic understanding on infrastructure-based and/or ad hoc wireless communication systems is expected
31	wireless networks	quality of service in wireless networks <a href="http://klab.nii.ac.jp/">http://klab.nii.ac.jp/</a>	Yusheng Ji	Professor	Master's or Ph.D students	1	3 or 6 months	Basic understanding on infrastructure-based and/or ad hoc wireless communication systems is expected
32	wireless networks	protocols in vehicular ad hoc networks <a href="http://klab.nii.ac.jp/">http://klab.nii.ac.jp/</a>	Yusheng Ji	Professor	Master's or Ph.D students	1	3 or 6 months	Basic understanding on infrastructure-based and/or ad hoc wireless communication systems is expected
33	network architecture	software defined networking <a href="http://klab.nii.ac.jp/">http://klab.nii.ac.jp/</a>	Yusheng Ji	Professor	Master's or Ph.D students	1	3 or 6 months	Understanding on internet architecture and protocols is required
34	mobile computing	Mobile crowdsourcing for Smart-City environments	Yusheng Ji	Professor	Master's or Ph.D students	1	3 or 6 months	
35	Hardware Design	Development of optical communication techniques for inter-chip connections	Tomohiro Yoneda	Professor	Master's or Ph.D students	1	6 months	
36	Self-adaptive Software	Model-driven development for self-adaptive software ( <a href="http://www.honiden.nii.ac.jp/en/research/mdd-for-sas">http://www.honiden.nii.ac.jp/en/research/mdd-for-sas</a> )	Kenji Tei	Associate Professor	Master's or Ph.D students	3	2-6 months	See the web site ( <a href="http://www.honiden.nii.ac.jp/en/research/mdd-for-sas">http://www.honiden.nii.ac.jp/en/research/mdd-for-sas</a> )

List of research topics for NII International Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
37	computer network	Internet traffic anomaly detection and classification. <a href="http://www.fukuda-lab.org/mawilab">http://www.fukuda-lab.org/mawilab</a>	Kensuke Fukuda	Associate professor	Master's or PhD students	1 or 2	5-6 months	Solid knowledge on machine learning algorithm and/or network programming is required
38	computer network	Internet traffic visualization. <a href="http://www.fukuda-lab.org">http://www.fukuda-lab.org</a>	Kensuke Fukuda	Associate professor	Master's students	1 or 2	5-6 months	Programming skills in D3.js
39	computer network	Internet traffic measurement. <a href="http://www.fukuda-lab.org">http://www.fukuda-lab.org</a>	Kensuke Fukuda	Associate professor	Master's or PhD students	1 or 2	5-6 months	Solid programming skills
40	Computer Science	Bidirectional Graph Transformations and its Applications to Model Transformations <a href="http://research.nii.ac.jp/~hidaka/internship">http://research.nii.ac.jp/~hidaka/internship</a>	Soichiro Hidaka	Assistant professor	Master's or PhD students	2	2 to 6 months	
41	Gamification, Motivation	Motivational Methods for WillingRing: A Motivation System using Gamified Precommitment based on Life Log Analysis (Web site: <a href="http://goo.gl/xMePpN">http://goo.gl/xMePpN</a> )	Kazunori Sakamoto	Assistant Professor	Master's or PhD students	2	2 to 6 months	We welcome students who love programming and creative activities. You can see my profile via LinkedIn ( <a href="http://goo.gl/em22I4">http://goo.gl/em22I4</a> ).
42	Web Mining, Wearable Device	Analysis Methods for WillingRing: A Motivation System using Gamified Precommitment based on Life Log Analysis (Web site: <a href="http://goo.gl/xMePpN">http://goo.gl/xMePpN</a> )	Kazunori Sakamoto	Assistant Professor	Master's or PhD students	2	2 to 6 months	We welcome students who love programming and creative activities. You can see my profile via LinkedIn ( <a href="http://goo.gl/em22I4">http://goo.gl/em22I4</a> ).
<b>3. Digital Content and Media Sciences Research Division</b>								
43	computer vision	One of the following topics. (1) 3D Scene reconstruction using RGB-D cameras, (2) RecoC49:C76+C49:C56gnizing human activities from video, (3) Image categorization and segmentation, and (4) Gaze sensing and gaze navigation. <a href="http://www.dgcv.nii.ac.jp/">http://www.dgcv.nii.ac.jp/</a>	Akihiro Sugimoto	Professor	Master's or Ph.D Student	4	Up to 6 months (at least 3 months; a longer period is better)	Rigorous background on mathematics is required. 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 pursuit 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.
44	discrete geometry	(1) Discretization model of geometric shape, (2) Discrete shape fitting to noisy integer points. <a href="http://www.dgcv.nii.ac.jp/">http://www.dgcv.nii.ac.jp/</a>	Akihiro Sugimoto	Professor	Master's or Ph.D Student	1	Up to 6 months (at least 3 months)	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.

List of research topics for NII International Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
45	text mining	Text mining based on latent topics <a href="http://www.ldear.nii.ac.jp/~takasu/en/">http://www.ldear.nii.ac.jp/~takasu/en/</a>	Atsuhiko Takasu	Professor	Master's or Ph.D Student	3	3-6 months	
46	Big Data	data analysis and mining methods for big data <a href="http://www.ldear.nii.ac.jp/~takasu/en/">http://www.ldear.nii.ac.jp/~takasu/en/</a>	Atsuhiko Takasu	Professor	Master's or Ph.D Student			
47	content-based image and video analysis	video and image semantic analysis and classification (esp. TRECVID SIN task. see: <a href="http://www-nlpir.nist.gov/projects/trecvid/">http://www-nlpir.nist.gov/projects/trecvid/</a> )	Shin'ichi Satoh	Professor	Master's or Ph.D (Ph.D preferable)	5	more than 90 days	
48	content-based image and video analysis	identification of specific object in video and image (esp. TRECVID instance search. see: <a href="http://www-nlpir.nist.gov/projects/trecvid/">http://www-nlpir.nist.gov/projects/trecvid/</a> )	Shin'ichi Satoh	Professor	Master's or Ph.D (Ph.D preferable)		more than 90 days	
49	content-based image and video analysis	Event detection and action recognition (esp. TRECVID multimedia event detection task. see: <a href="http://www-nlpir.nist.gov/projects/trecvid/">http://www-nlpir.nist.gov/projects/trecvid/</a> )	Shin'ichi Satoh	Professor	Master's or Ph.D (Ph.D preferable)		more than 90 days	
50	content-based image and video analysis	3D video analysis (esp. obtained by Kinect) for human action recognition	Shin'ichi Satoh	Professor	Master's or Ph.D (Ph.D preferable)		more than 90 days	
51	Natural Language Processing	Syntactic/Semantic Parsing of Natural Language <a href="http://kmcs.nii.ac.jp/mylab/">http://kmcs.nii.ac.jp/mylab/</a>	Yusuke Miyao	Associate Professor	Master's or Ph.D Student	1	6 months	Fundamental knowledge about one of the following areas is required: 1. statistical parsing methods (e.g. PCFG parsing, dependency parsing), or 2. syntactic theory (e.g. HPSG, CCG)
52	Natural Language Processing	Recognition of Textual Entailment <a href="http://kmcs.nii.ac.jp/mylab/">http://kmcs.nii.ac.jp/mylab/</a>	Yusuke Miyao	Associate Professor	Master's or Ph.D Student	1	6 months	Fundamental knowledge about one of the following areas is required: 1. structured machine learning methods (e.g. CRF, tree kernel methods), or 2. theory of natural language semantics (FOL, DRT, natural logic)
53	Natural Language Processing	Machine Translation <a href="http://kmcs.nii.ac.jp/mylab/">http://kmcs.nii.ac.jp/mylab/</a>	Yusuke Miyao	Associate Professor	Master's or Ph.D Student	1	6 months	Fundamental knowledge about one of the following areas is requested: 1. statistical machine translation tools (e.g. GIZA++, Moses, etc.), or 2. syntactic parsing tools (Stanford parser, Berkeley parser, etc.)
54	Text media	Mining and semantic analysis of text <a href="http://www-al.nii.ac.jp/">http://www-al.nii.ac.jp/</a> <a href="http://kmcs.nii.ac.jp/">http://kmcs.nii.ac.jp/</a>	Akiko Aizawa	Professor	Master's or Ph.D students	1 or 2	4-6months	
55	Text media	Gaze-based natural language processing <a href="http://www-al.nii.ac.jp/">http://www-al.nii.ac.jp/</a>	Akiko Aizawa	Professor	Master's or Ph.D students	1 or 2	4-6months	

List of research topics for NII International Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
56	signal processing	graph-based image restoration & processing <a href="http://research.nii.ac.jp/~cheung/intern.html">http://research.nii.ac.jp/~cheung/intern.html</a>	Gene Cheung	Associate Professor	Ph.D students	1	3 months minimum	Knowledge of low-level image processing and a strong background in mathematics (linear algebra, combinatorial & convex optimization) are required.
57	Speech information processing	Controllable, flexible, and enjoyable speech synthesizer for audiobook <a href="http://researchmap.jp/read0205283/?lang=english">http://researchmap.jp/read0205283/?lang=english</a>	Junichi Yamagishi	Associate Professor	Master's or Ph.D students	2	2-6 months	The successful candidate should be a Master or PhD student in speech processing, computer science, engineering, linguistics, mathematics, or a related discipline. He or she should have strong programming skills and experience with statistical parametric speech synthesis. • Familiarity with software tools including HTK, HTS, SPTK, and Festival is preferable
58	Speech information processing	Speaker recognition and countermeasures for spoofing <a href="http://www.signalprocessingsociety.org/technical-committees/list/sl-tc/spl-nl/2013-05/spoofing/">http://www.signalprocessingsociety.org/technical-committees/list/sl-tc/spl-nl/2013-05/spoofing/</a>	Junichi Yamagishi	Associate Professor	Master's or Ph.D students	2	2-6 months	The successful candidate should be a Master or PhD student in speech processing, computer science, engineering, linguistics, mathematics, or a related discipline. He or she should have strong programming skills.
59	Speech information processing	DNN-based speech synthesis (signal processing, acoustic modeling and text analysis)	Junichi Yamagishi	Associate Professor	Master's or Ph.D students	2	2-6 months	The successful candidate should be a Master or PhD student in speech processing, computer science, engineering, linguistics, mathematics, or a related discipline. He or she should have strong programming skills and experience with statistical parametric speech synthesis and deep learning. • Familiarity with software tools including HTK, HTS, SPTK, and Festival is preferable
60	Speech information processing	Spoken dialogue system ( <a href="http://www.mmdagent.jp">http://www.mmdagent.jp</a> , <a href="http://www.udialogue.org">http://www.udialogue.org</a> )	Junichi Yamagishi	Associate Professor	Master's or Ph.D students	2	2-6 months	The successful candidate should be a Master or PhD student in speech processing, computer science, engineering, linguistics, mathematics, or a related discipline. He or she should have strong programming skills. Familiarity with software tools including MMDAgent is preferable
61	Speech information processing	Voice transformation (Parameterization and models, new applications/frameworks using voice transformation and speech synthesis seamlessly)	Junichi Yamagishi	Associate Professor	Master's or Ph.D students	2	2-6 months	The successful candidate should be a Master or PhD student in speech processing, computer science, engineering, linguistics, mathematics, or a related discipline. He or she should have strong programming skills and experience with speech synthesis or voice conversion.
62	Computer Vision and Computer Graphics	Computational Photography: Image-based rendering, Image processing, Color analysis, Spectral imaging <a href="http://research.nii.ac.jp/~imarik">http://research.nii.ac.jp/~imarik</a>	Imari Sato	Professor	Master's or Ph.D students	2	5 to 6 month	A basic knowledge of computer graphics and good programming skills are required

List of research topics for NII Intenational Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
63	3D Internet and Virtual Worlds (Foundations)	R&D in the foundations of networked massively multi-user 3D virtual environments, based on our original framework (DiVE) and Unity3D. Topics include networking, interest managment algorithms, prediction models, smoothness algorithms, and scaling techniques for large numbers of simultaneous users. <a href="https://sites.google.com/site/ico2globallab/">https://sites.google.com/site/ico2globallab/</a> (iCO2 website) <a href="http://research.nii.ac.jp/~prendinger/">http://research.nii.ac.jp/~prendinger/</a> (personal website)	Helmut Prendinger	Professor	Master's or PhD students	12	3-6 months	Solid programming background (e.g. C Sharp). Longer stay preferred for good result (some interesting software). Paper writing will be encouraged and actively supported.
64	3D Internet and Real World (Cyber-Physical Systems)	Application-oriented research based on 3D virtual environments (Unity3D) integrated to real-world settings, incl. "serious games" and Social Mobile Gaming for smart cities, disaster evacuation, etc. Target platform for "field users" is mobile devices, such as Smartphone, UAV ("drone"), AR device, and wearables. Target device for offsite users is VR device (e.g. Oculus Rift). Such projects will use techniques from Artificial Intelligence and Intelligent User Interface. <a href="https://sites.google.com/site/ico2globallab/">https://sites.google.com/site/ico2globallab/</a> (iCO2 website) <a href="http://research.nii.ac.jp/~prendinger/">http://research.nii.ac.jp/~prendinger/</a> (personal website)	Helmut Prendinger	Professor	Master's or PhD students		3-6 months	Solid programming background (e.g. C Sharp). Knowledge of Unity3D is desirable, but not necessary. Longer stay preferred for good result (some interesting software). Paper writing will be encouraged and actively supported.
65	Content Creation for the 3D Internet (3D City Map)	Implementation of Artifical Intelligence and image processing techniques for automated content creation of immersive 3D city maps based on OpenStreenMap. The result will be used for immersive experience of the city and as an aerial roadnetwork for UAVs. This work is complementary to Google Earth or Street view. We are using crowdsourcing methods to collect rich data <a href="https://sites.google.com/site/ico2globallab/">https://sites.google.com/site/ico2globallab/</a> (iCO2 website) <a href="http://research.nii.ac.jp/~prendinger/">http://research.nii.ac.jp/~prendinger/</a> (personal website)	Helmut Prendinger	Professor	Master's or PhD students		3-6 months	Solid programming background (e.g. C Sharp) Longer stay preferred for good result (some interesting software). Paper writing will be encouraged and actively supported.
66	Data Mining of Human Behavior (Data Analytics)	Analysis of original large-scale data collected from real-world and virtual world studies on driving (iCO2), disaster evacuation, etc.; predictive analytics (Markov chain, kNN, etc) <a href="https://sites.google.com/site/ico2globallab/">https://sites.google.com/site/ico2globallab/</a> (iCO2 website) <a href="http://research.nii.ac.jp/~prendinger/">http://research.nii.ac.jp/~prendinger/</a> (personal website)	Helmut Prendinger	Professor	Master's or PhD students		3-6 months	Solid programming background (e.g. C Sharp) Longer stay preferred for good result (some interesting software). Paper writing will be encouraged and actively supported.
67	Discourse Search Engine (NLP)	We are building the first-ever Discourse Search Engine (DSE) that exploits the discourse structure in documents to overcome limitations of current document representations in web search. The vision is to improve on Microsoft Cortana as question-answering system (see our ECIR'15 paper) <a href="http://research.nii.ac.jp/~prendinger/">http://research.nii.ac.jp/~prendinger/</a> (personal website)	Helmut Prendinger	Professor	Master's or PhD students		3-6 months	Solid programming background (e.g. C Sharp). Longer stay preferred for good result (some interesting software). Paper writing will be encouraged and actively supported.

List of research topics for NII International Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
68	Sentiment Recognition from Text (NLP)	Recognition of emotion and attitude from text with Machine Learning and rule based approaches. <a href="http://research.nii.ac.jp/~prendinger/">http://research.nii.ac.jp/~prendinger/</a> (personal website)	Helmut Prendinger	Professor	Master's or PhD students		3-6 months	Solid programming background (e.g. C++ or C Sharp) Longer stay preferred for good result (some interesting software). Paper writing will be encouraged and actively supported.
69	Software Engineering (Formal Methods, Assurance Case, Goal Models)	Engineering Support of Formal Refinement and Assurance <a href="http://research.nii.ac.jp/~f-ishikawa/internships/">http://research.nii.ac.jp/~f-ishikawa/internships/</a>	Fuyuki Ishikawa	Associate Professor	Master's or PhD students	4	2-6months	
70	Software Engineering (Formal Methods, Testing, Agile Development)	Spec-Test-Go-Round Tool <a href="http://research.nii.ac.jp/~f-ishikawa/internships/">http://research.nii.ac.jp/~f-ishikawa/internships/</a>	Fuyuki Ishikawa	Associate Professor	Master's or PhD students		2-6months	
71	Laws and Software Engineering (Requirements Engineering)	Legal Interpretation Modeling and Tracking <a href="http://research.nii.ac.jp/~f-ishikawa/internships/">http://research.nii.ac.jp/~f-ishikawa/internships/</a>	Fuyuki Ishikawa	Associate Professor	Master's or PhD students		2-6months	
72	Service-Oriented Computing, Cloud Computing, Internet of Things	Smart Service Compositions/Mashups in the City and the Web <a href="http://research.nii.ac.jp/~f-ishikawa/internships/">http://research.nii.ac.jp/~f-ishikawa/internships/</a>	Fuyuki Ishikawa	Associate Professor	Master's or PhD students		2-6months	
73	Multimedia Analysis and Services	People activities analytics in the context of social online presences and real physical behaviours in multimedia landscape (e.g., personalized video soundtrack recommendation, enhancing online education by leveraging social media techniques)	Yi Yu	Assitant professor	Master's or PhD students	2	3-6months	
74	Music Information Retrieval and Its Applications	Music discovery (e.g., content-based music retrieval and playlisting, personalized music recommendation) and music rhythmic entrainment for physical rehabilitation (e.g., for CI children)	Yi Yu	Assitant professor	Master's or PhD students	2	3-6months	



List of research topics for NII Intenational Internship Program 2015 1st Call

No.	Research area	Title of the research	Name of supervisor	Title of the supervisor	Requirements for applicants : Master's / Ph.D. Student	Numbers of acceptance	Duration : 2-6months (less than 180days)	Comments
<b>4. Management and Outside Collaboration on R&amp;D</b>								
75	Databases / Data Mining	Similarity Search and Intrinsic Dimensionality ( <a href="http://zephyr.nii.ac.jp/houlelab/downloads/proj-simsearch.pdf">http://zephyr.nii.ac.jp/houlelab/downloads/proj-simsearch.pdf</a> )	Michael Houle	Visiting Professor	Master's or PhD students	6	3-6 months	Priority given to PhD students, and for internships of 5-6 months.
76	Data Mining	Outlier Detection and Data Dimensionality <a href="http://zephyr.nii.ac.jp/houlelab/downloads/proj-outlier.pdf">http://zephyr.nii.ac.jp/houlelab/downloads/proj-outlier.pdf</a>	Michael Houle	Visiting Professor	Master's or PhD students		3-6 months	Priority given to PhD students, and for internships of 5-6 months.
77	Data Mining	Clustering and Data Dimensionality ( <a href="http://zephyr.nii.ac.jp/houlelab/downloads/proj-clust.pdf">http://zephyr.nii.ac.jp/houlelab/downloads/proj-clust.pdf</a> )	Michael Houle	Visiting Professor	Master's or PhD students		3-6 months	Priority given to PhD students, and for internships of 5-6 months.
78	Data Mining / Machine Learning	Unsupervised Feature Selection ( <a href="http://zephyr.nii.ac.jp/houlelab/downloads/proj-features.pdf">http://zephyr.nii.ac.jp/houlelab/downloads/proj-features.pdf</a> )	Michael Houle	Visiting Professor	Master's or PhD students		3-6 months	Priority given to PhD students, and for internships of 5-6 months.
79	Data Mining / Machine Learning	KNN Classification and Applications ( <a href="http://zephyr.nii.ac.jp/houlelab/downloads/proj-classification.pdf">http://zephyr.nii.ac.jp/houlelab/downloads/proj-classification.pdf</a> )	Michael Houle	Visiting Professor	Master's or PhD students		3-6 months	Priority given to PhD students, and for internships of 5-6 months.
80	Theory (Algorithmics, Statistics, Machine Learning)	Theory of Intrinsic Dimensionality ( <a href="http://zephyr.nii.ac.jp/houlelab/downloads/proj-id-theory.pdf">http://zephyr.nii.ac.jp/houlelab/downloads/proj-id-theory.pdf</a> )	Michael Houle	Visiting Professor	Master's or PhD students		3-6 months	Priority given to PhD students, and for internships of 5-6 months.