



Greetings



Masayoshi Nuki Chairman



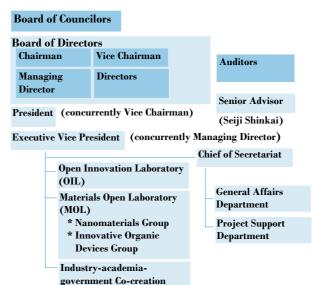
Sunao Yamada President

In 1995, a dramatic change toward an information networking society was taking place not only in Japan and but throughout the world. This world-wide trend was called the "Information Revolution." Founded in the same year with the goal of helping to develop the kinds of information-related industries that are at the forefront of industry today, Fukuoka-based ISIT has taken a leading role in revitalizing local industry in the systems and information technology fields. In 2008, ISIT added advanced science and technology fields such as nanotechnology to more broadly apply its scientific and technological expertise. With the experience ISIT has gained in industry-academia-g overnment partnerships, ISIT has also pursued programs to support the development of new industries locally.

In 2013, the high level of public interest served by ISIT in the past was recognized by the Prime Minister with a public interest designation as ISIT was relaunched in April as a public interest incorporated foundation.

In the future, we believe that the expectations and responsibilities placed upon ISIT will be even greater. We will dedicate ourselves to contributing even more toward the growth of local industrial clusters through the active development of programs and establishment of a vibrant local society. Toward that end, we are grateful for your continued support and cooperation.

Organization Chart (April 2018)



Promotion Department

Through international collaboration involving industry, academia, and government primarily in the Asia Pacific region, ISIT undertakes medium and long-term, topically strategic research and development, as well as projects involving societal applications/demonstrations, in systems and information technology, nanotechnology, and other advanced scientific and technological fields, as well as those related to them. ISIT contributes broadly to the development of industrial clusters and the regional economy by serving as a bridge for technology transfer and technological exchange through support activities that include the design of various industry-academia-government-partnered programs and projects, consulting, human resource development, and exchange and collaboration.

Outline

Name:

Institute of Systems, Information Technologies and Nanotechnologies (ISIT) (Public Interest Incorporated Foundation)

2008-2012: Institute of Systems, Information Technologies and Nanotechnologies (Incorporated Foundation)

1995-2007: Institute for System Infor Founding mation Technologies/Kyushu (Incorporated Foundation)

Founding:

Established December 25, 1995, with approval of the Minister of Economy, Trade and Industry (the former Minister of International Trade and Industry) Transitioned to public interest incorporated foundation on April 1, 2013, as authorized by the Prime Minister

Capital

JPY 300 million (of which Fukuoka City contributed JPY 250 million)

Supporting Membership:

53 corporate members, 17 individual members (as of April 2018)

Research Institution Number:

Research institution with Grant-in-Aid for Scientific Research Research institution number 87103 e-Rad research institution code 6800498931

listory

June 1993: Kyushu University's working group reports the result of their survey on desirable R&D to be conducted at Fukuoka SRP

March 1995: A committee to investigate the establishment of a core research institute at Fukuoka SRP is formed

December 1995: Institute for System Information Technologies/Kyushu (Incorporated Foundation) is founded

October 2003: Designated a research institution with Grant-in-Aid for Scientific Research (institution number obtained)

April 2008: Reorganized with the name "Institute of Systems, Information Technologies, and Nanotechnologies" (Nanotechnology Laboratory newly created)

April 2012: Innovative Organic Device R&D Laboratory newly created.

April 2013: Transitioned to public interest incorporated foundation

April 2017: Open Innovation Laboratory (OIL) created (IT-related laboratories reorganized)

June 2017: Industry-academia-government Co-creation Promotion Department established

April 2018: Materials Open Laboratory (MOL) created (NT-related laboratories reorganized)

Activities Overview

Six Activities to Meet the Needs of a New Society



Research & Development, Societal Application/Demonstration

We conduct our own research and engage in initiatives involving societal applications/demonstrations. The research findings we produce are shared with local companies and regional society through project-based research, contract research, joint research, etc.

Promotional Structure

Open Innovation Laboratory (OIL)

(see pg. 5)

Utilizing cutting-edge IT technology that benefits society to promote societal applications and demonstrations in partnership with industry, academia, and government

- Open innovation hub
- Promoting and implementing societal applications and demonstrations with DoTank
- Bridge to industry commercialization and industrialization



Fukuoka SRP Center Building

Materials Open Laboratory (MOL)

(see pg. 7)

Developing basic technologies for the manufacture of photonic elements/devices made with organic, inorganic, or metal-based nanomaterials

Nanomaterials Group

- Development and industrial applications of plasmonic nanomaterials
- · Development of light energy-converting nanomaterial systems

Innovative Organic Devices Group

- Research and development of assessment and optimization technologies for practical applications of organic electroluminescence
- · Research and development related to exciton control technology in organic photonic devices

Fukuoka industry-Symphonicity (FiaS)

Project-based Research, Contract and Joint Research

In partnership with local corporations and universities, we utilize our respective research findings to obtain funding for research and experimental demonstrations and to promote R&D and projects by applying to government research programs with open calls for proposals.

To find solutions to research and development, support practical applications of research findings, and bridge industry commercialization and industrialization, we undertake R&D, experimental demonstrations, studies and so forth on behalf of corporations, universities, government and so on and also engage in joint research with corporations, universities, and similar organizations

Cases of Project-based Research

- Development of an automatic differential diagnosis system based on adaptive artificial intelligence with distinctive logic tailored to elderly characteristics (Ministry of Economy, Trade and Industry)
- Integration of energy-efficient strawberry cultivation, harvest forecasting, and low-cost transport technology to strengthen sales and international competitiveness (Ministry of Agriculture, Forestry and Fisheries)
- Development of materials for next-generation high-efficiency organic electroluminescent (EL) display (New Energy and Industrial Technology Development Organization)



Consulting

We provide consulting services for corporations, local governments, and other such organizations to answer questions and help find solutions regarding technological issues they face in such fields as systems and information technology and

Depending on the need, we also provide concrete support to help find solutions through contract/joint research, industryacademia and industry-industry matching, and the use of (proposals to) programs with open calls.



Analysis-based consulting service "BUNSEKI NEXT" (see pg. 8)



Creating New Industries and New Businesses Through **Industry-Academia-Government Partnerships**

We aim to support the creation of new industries and new businesses in a wide range of fields, including systems and information technology, nanotechnology, organic photonic devices, car electronics, and medical/bio, through the building of human networks, partnerships with related institutions, and support for industry-academia matching.

Promoting Innovation Through Industry-Academia-Government Partnerships

In addition to building a platform to encourage open innovation in collaboration with Fukuoka City through the activities of innovation architects and the like, we also promote activities that support the creation of new businesses and startups, such as industry-academia joint research and development projects involving experimental demonstrations and industry-academia partnership matching.









Promoting Center of Excellence in Organic Photonics and Electronics Research and Development

In partnership with the Kyushu University Center for Organic Photonics and Electronics Research (OPERA) and Center for Applied Organic Photonics and Electronics Development (i3-OPERA), we have been promoting Academic City by Kyushu University as a center of excellence in organic photonics and electronics research and development.



Kyushu University Center for Center for Applied Organic **Organic Photonics and Electronics Research** (OPERA)



Photonics and Electronics Development (i3-OPERA)



Gathering and Providing Information

- o Organizing seminars for citizens
- Publishing activities reports
- Sharing information through website and online newsletter
- o Collecting information (books, articles, etc.) on advanced technology, etc.



Gathering and Providing Information (seminars for citizens)

Available for viewing in the SRP Open Innovation Lab and ISIT Community Space. >







In addition to organizing seminars to strengthen the research and development capabilities of engineers and others in local companies, we also receive engineers from companies and overseas. We also support handson education for elementary and middle school

- o Organizing seminars, etc.
- Receiving corporate engineers and researchers
- o Developing human resources through education and internship opportunities for young researchers





Exchange and Collaboration

We hold talks in various formats on the latest in advanced science and technology, including systems and information technology and nanotechnology. Through various timely events we hold, including talks by domestic and foreign researchers and research meetings in partnership with industry, academia, and government, our "network of people and information" is ever expanding.

- Research exchange with the Kyushu University Institute for Advanced Study and Advanced Science, Technology & Management Research Institute of Kyoto
- o Exchange and collaboration with industry/academia /government-partnered institutions in the northern Kyushu area (e.g. Joint-IFF, Team Momo no Ito)
- o Exchange activities with the Kyushu University Center for Future Chemistry, Japan Society for Analytical Chemistry Kyushu Branch, Research Society for Plasmonics, etc.

Keiji Aramaki, Director (concurrently Executive Vice President)

Our lab utilizes the technology it has developed and seeds from universities and other scientific research institutions in Kyushu to promote societal applications and demonstrations in partnership with industry, academia, and government. Through partnerships and collaborations with institutions like Kyushu University and the Institute of Advanced Industrial Science and Technology (AIST), we seek solutions to the issues faced by private companies in the Kyushu area and conduct joint research and development on AI, big data, IoT, and more.



Theme:

Utilizing cutting-edge IT technology that benefits society to promote societal applications and demonstrations in partnership with industry, academia, and government

Hub of open innovation (Hub)

As a venue for finding solutions to issues through open innovation, we contribute to the economic and industrial development of the Kyushu area. By addressing industry issues and needs, we provide support to startups in the Kyushu area and help support regional revitalization.

applications and demonstrations (DoTank) DoTank promotes and implements

societal applications and experimental demonstrations in partnership with industry, academia, and government. Through the outstanding inventions and discoveries we offer in real-world applications and demonstrations, we support the creation of innovation that builds competitiveness and value.

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Promoting and

implementing societal

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Bridge to industry commercialization and industrialization (Bridge Building)

We build bridges between outstanding inventions and discoveries and industry commercialization and industrialization. By doing so, we contribute to the creation of an abundant and sustainable society.

Specific Activities

Demonstrations

We handle innovations that generate new business opportunities, including AI, IoT, big data and open data, blockchains, cybersecurity, human interfaces, virtual reality (VR) and augmented reality (AR), and more.

AR/VR Research and Application (Measurement x Visualization → Usefulness)

Using measurement and visualization technology, we conduct research and development aimed at creating systems that enable people to live abundant lives from the perspective of "whenever, wherever, whoever." In particular, we support medicine, sports, and agriculture through human measurements using wearable devices, environmental monitoring using sensors, and information display using AR and VR.







BigData & OpenData Initiative in Kyushu (BODIK)

BODIK has been engaged in projects that use and apply big data and open

In October 2017, "to encourage the use and application of data across the boundaries of industry, academia, and government and to contribute to the smartification of not only Kyushu but all areas of Japan." we launched the "Open Data Center" to provide the following four services.

I. Open Data Catalog Site

Local governments can use our online catalog of open data at no charge. **II. Open Data Monitor**

This one-stop portal collects and re-categorizes open data from all local governments.

III. Open Data Unified API

Standardized open data from multiple local governments can been easily searched.

IV. Seminars and Workshops

We organize educational seminars to strengthen understanding of open data's significance and lead practical workshops aimed at teaching how to publish and http://www.bodik.jp/opendatacenter/



Promoting "Super-Smart Society (Society 5.0)"

By building a unified stream of data —from gathering and collection to selection, analysis, and utilization— we make corporate activities more sophisticated and work toward the creation of smart cities.



SRP Open Innovation Lab

This facility, which opened in March 2018 on the first floor of the Fukuoka SRP Building Center, is a place to experience the latest ICT technologies, including AI, IoT, and AR/VR. ISIT staff are also on hand to discuss any of these technologies. = photo

Showroom	Hands-on with the latest ICT technologies	Al solutions on exhibit Examples of IoT sensing on exhibit Hands-on with AR and VR devices Introduction to examples of open dausage
	On a sa musudad dan	Organized seminars and events for
Communicati on Space for Engineers	Space provided for communication among professionals	Communication among local engine partnerships with diverse communiti Open for use as co-working space Technical publications available for
		Experiments applying IoT devices; L
Test Bed	Experiments using and applying IoT technologies	communication standard validation (LoRaWAN standard) • Visualization and variation research sensing results

Solutions to

advanced

concerns about

technologiess

Technical

Inquiries

- R devices of open data events for engineers
- ocal engineers, communities ing space
- T devices: LPWA validation
- Al (machine learning, deep learning, etc.) · IoT (LoRaWAN, experimental societal
- · Data use and application (open data)
- · Visualization (AR/VR, etc.)

demonstrations)





所:福岡市早良区百道浜2丁目1番22号 福岡SRPセンタービルIF

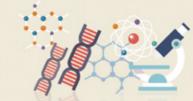
運営主体:公益財団法人 九州先端科学技術研究所 情報発信(facebook)

https://www.facebook.com/SRPOIL/

問い合わせ・ SRP Open Innovation lab 公益財団法人 九州先端科学技術研究所(ISIT) TEL 092-852-3495

Introducing the Materials Open Laboratory (MOL)

Materials Open Laboratory (MOL)



Sunao Yamada, Director (concurrently President)

By making the most of solid research skills and experiences, we have been studying the fields of photonics, materials science, and supramolecular chemistry. It leads to the creation of novel photo functional units and devices, by utilizing organic, inorganic, and plasmonic nanomaterials. Also, we promote R&D under the industry-academia-government partnership in the field of green and life science and technology.

Also, utilizing the most of various types of state-of-the-art analytical instruments concentrated in Ito campus area, we have launched the analysis-based consulting service "BUNSEKI-NEXT" which support companies by solving their technological problems.



Theme:

Utilizing cutting-edge IT technology that benefits society to promote societal applications and demonstrations in partnership with industry, academia, and government

Developments of photofunctional units and devices consisting of metal nanomaterials

Nano Device Group: Sunao Yamada, Research Group Leader

By performing surface chemical modifications to gold and silver nanoparticles that exhibit plasmon resonance absorption in the visible to near-infrared range, we aim to establish conditions that enable nanoparticles to become tissue and film in order to create innovative photonic devices through a collaboration of novel light energy-converting elements, light sensing elements, organic materials and plasmonic nanomaterials.

Developments of innovative basic technologies for manufacturing next-generation organic semiconductor photonic devicess Innovative Organic Device Group:

Innovative Organic Device Group: Masayuki Yahiro, Research Group Leader

In partnership with companies, universities, and other research institutions, we develop organic photonic devices that serve as innovative basic technologies capable of maximizing the potential of organic semiconductors



unhindered by conventional thinking through research and development related to organic photonicelectronic devices, including organic electroluminescence (EL), organic solar cells, and organic transistors.

Specific Activities

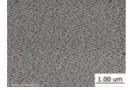
Nanomaterials Group

(1) Development and industrial applications of plasmonic nanomaterials

- •Development of plasmonic nanomaterials that absorb and localize the light in the visible to near-infrared region.
- Development of technologies that enables nanoparticles and film formation of nanoparticles through their chemical modifications

(2) Development of photoenergy conversion nanomaterial systems

- Development of nanomaterials for organic photo-electronics
- Development of basic technologies that enhance performance caused by introducing photonic devices, and extend into the photosensing devices



Electron microscopic images of silver nanoplates



Optical images of the colloidal solutions of silver nanoplates with different sizes (courtesy of Dai Nippon Toryo Co., Ltd.)

Innovative Organic Device Group

(1) Research and development of assessment and optimization technologies for practical applications of organic electroluminescence

- Development of surface sealant technologies and flexible printed-circuit processes in partnership with companies and i3-OPERA, as well as the establishment of evaluation techniques
- Development of organic white-light electroluminescence (EL) using innovative light-emitting material (thermally activated delayed fluorescent material: TADF materials) invented by Kyushu University
- Creation and standardization of organic blue-light EL with high efficiency and high color purity
- Establishment of fine technologies for organic EL thin films, and applications to device designing, utilizing time-resolved fluorescence spectrum measurement, thermally stimulated current measurement, magnetic field-internal luminous characteristics
- Introduction of new nanomaterials into organic EL and improving performance

(2) Research and development related to exciton control technology in organic photonic devices

- Establishment of fabrication technology for crystalline thin film in perovskite solar-cells and flexibilization
- Development of sensing devices in the visible to near-infrared region and performance improvement using localized plasmonic effects
- Development of novel devices based on interactions between organic molecules and photons by collaborating with RIKEN



Semitransparent flexible organic EL during evaluation



Tandem-type organic white-light EL device using yellow-emitting TADF material and blue material

Analysis-based consulting service "BUNSEKI NEXT"

The consulting desk has been opened in Fukuoka industry-academia Symphonicity (FiaS) = photo, in order to solve the problems and help the medium and small-to-midsize companies as well as startups. Utilizing state-of-the-art analytical instruments and collaborating with Kyushu university, our consulting team "BUNSEKI-NEXT" will support the companies which are facing the technical problems in developing their new products/services.

Senior experts	Senior experts from companies help the R&D of companies.	
Various Analytical Instruments	Various types of analytical instruments in FiaS and Kyushu University contributes to the R&D of companies	
Proposal of solving problems	Proposal of appropriate ideas for solving problems	
Attentive Supports	Valuable consulting based on instrumental analyses and technological advices	
問い合わせ ――――― 公益財団法人 九州先端系		





We create environments where various entities engaged in creation and training of R&D-type startup can get together to find up their partnership.



Fukuoka Industry-Academia
Co-creation Consortium

https://fiac2.isit.or.ip/

Ongoing Projects based on Partnership with Industry, Academia, and Government

Fukuoka-city IoT Consortium



With its core of Fukuoka City, NPO QUEST, and the Institute of Systems, Information Technologies and Nanotechnologies (ISIT), the consortium creates spaces that bring together wide-ranging technologies and insights for corporations, organizations, individuals, universities, startups, and others interested in IoT in the Fukuoka City area to build IoT networks for participation and partnership between industry, academia, and government. The network provides support to promote IoT technological improvement, funding procurement, product development, and new business creation.

- I. Provides the latest IoT-related technological information and introduces IoT-related case studies
- II. Support matching between organizations—for instance, between IoT startups and VC/financial institutions and between IoT startups and large-scale systems integrators
- III. Organizes and operates IoT Acceleration Fukuoka city Lab





Example of Al seminar

http://www.fitco.jp/

Fukuoka Industry-Academia Co-creation Consortium

ふくおか産学共創 コンソーシアム

In December 2017, the Fukuoka Industry-Academia Co-creation Consortium was founded jointly with Fukuoka City. The aim of this consortium is to realize innovation and develop the regional economy by interacting with companies, universities, and organizations. This consortium promotes the creation and growth of R&D-type startup, realization of innovation, enhancing the R&D capability of companies. Also, it offers the environments to realize innovation and develop regional economy by interacting with companies, universities, financial institution and other organizations. We expect the positive spiral through the activities in this consortium.



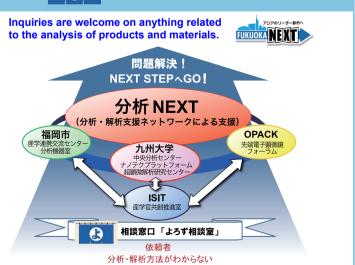
December 15, 2017



https://fiac2.isit.or.ip/

Analysis-based consulting service "BUNSEKI NEXT"

As part of an industry-supporting program in partnership with Fukuoka City, Kyushu University, and the Organization for Promotion Academic City by Kyushu University (OPACK), ISIT offers technological supports and advices as a core institution (inquiry desk) for Team of "BUNSEKI-NEXT" that helps analysis-related issues of companies.



TOPICS





Agreement Signing to Partner and Collaborate with AIST

In February 2018, with the goal of strengthening our bridging function in the Kyushu area, a partnership and collaboration agreement was signed with the Department of Information Technology and Human Factors at the National Institute of Advanced Industrial Science and Technology.

- Strengthens bridging function in the Kyushu area
- Seeks solutions to issues faced by local companies through a partnership between our two institutions
- Builds framework for close partnership, including collaboration on experimental demonstrations and reciprocal facility use







Signing of Partnership **Agreement to Create Analysis**based Supporting Network

In December 2017, a partnership agreement was signed between ISIT, Kyushu University, Fukuoka City, and the Organization for Promotion Academic City by Kyushu University (OPACK). This agreement includes the solving of analytical problems, human resource development. creation of innovation in industries and academia, through the mutual utilization of the resource of analytical instruments and technologies in the four organizations. Under this agreement, we perform the project of "BUNSEKI-NEXT."











Public Symposium Held

In 2018, a symposium was held on the topic of using technologies such as IoT, open data, and big data locally to ensure children are safe and secure as they go to and

With talks by experts on regional crime, case studies by corporations on commercial and experimental uses of IoT technologies to support child safety and monitoring, reports by ISIT on methods of analyzing traffic accident open data, the event was an opportunity for the public to better understand activities by local corporations and ISIT.





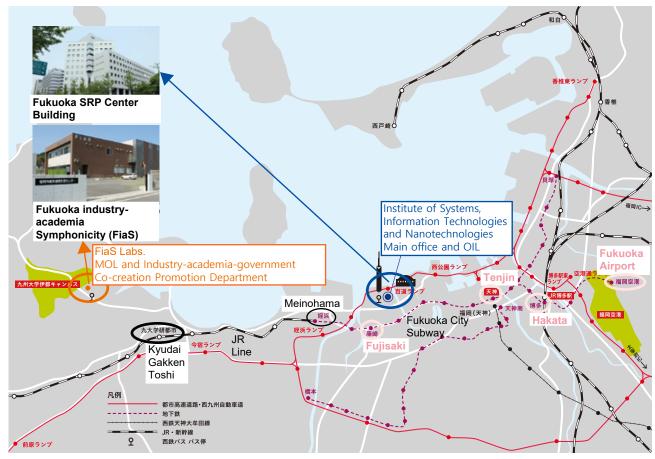
"Future Researchers" visited ISIT

In August 2018, groups of middle and high school students visited ISIT. Students listened with great interest the lecture of researchers and introduction of electron microscope and other equipment. Afterward, students said they had a newfound appreciation for just how closely tied their everyday lives were to science and technology.

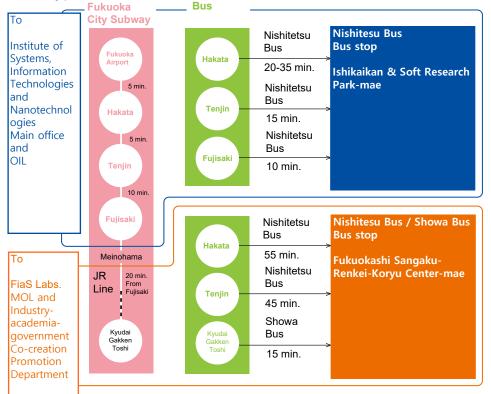
Also, we conducted science school for elementary and middle school students joining with the Center for Future Chemistry, Kyushu university.

We positively promote opportunity to experience the science and technology for kids.









Call for Supporting Members

Anyone (organizations, companies, individuals, etc.) in agreement with our institutes founding goals are welcome to join.

Member Benefits

- 1. Discounts on ISIT technology consulting fees
- 2. Use of equipment and supplies in the community space and meeting rooms
- 3. Introduction on the ISIT website
- 4. Delivery of ISIT activities report "What IS IT?", and more

For more information, contact the General Affairs Department

詳細はISIT総務部まで

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http://www.isit.or.jp/about/supporter/



九州先端科学技術研究所 Institute of Systems, Information Technologies and Nanotechnologies



 Institute of Systems, Information Technologies and Nanotechnologies (Main office / OIL)

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 FiaS Labs. (MOL / Industry-academia-government Co-creation Promotion Department)

Fukuoka industry-academia Symphonicity (FiaS) 4-1.Kyudaishinmachi Nishi-ku, Fukuoka City,

819-0388 Japan

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公益財団法人九州先端科学技術研究所

Institute of Systems, Information Technologies and Nanotechnologies

賛助会員入会のご案内

当財団の事業目的に賛同して頂ける方 (企業/団体/個人等)の賛助会員入会を募集中

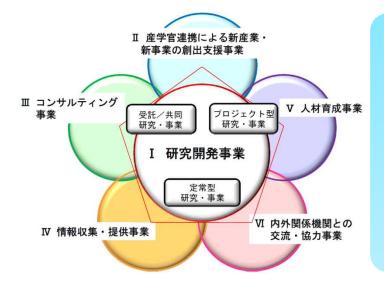
主な特典

- 1. ISIT主催のセミナー・交流会を優先的にご案内
- 2. コンサルティング(技術相談等)の初期相談が無料
- 3. ホームページで会員紹介(リンク等)
- 4. その他活動報告書や活動レポートの送付





当財団は、システム情報技術、ナノテクノロジーなどの先端科学技術分野において、九州地域における共創の場を提供し、社会実装や社会実証、産業界のニーズと大学等研究機関等のシーズをつなぐ開発研究を産学官連携の下で推進するなど、産業の振興と経済社会の発展に資する様々な活動・事業(公益目的事業)を行っています。



産学官連携プロジェクト (H30.4現在)

- 福岡市IoTコンソーシアム(FITCO)
- ビッグデータ&オープンデータ・ イニシアティブ九州(BODIK事業)
- O SRPオープンイノベーションラボ
- 分析・解析よろず相談事業(分析NEXT)
- ふくおか産学共創コンソーシアム

など

詳細:<u>http://www.isit.or.jp/project/</u>



【入会申込・お問合せ窓口】

当研究所 総務部 Tel: 092-852-3450 Fax: 092-852-3455

〒814-0001 福岡市早良区百道浜2丁目1番22号 福岡SRPセンタービル5階

賛助会員入会申込書

公益財団法人九州先端科学技術研究所 宛

貴研究所の事業目的に賛同し、賛助会員として入会を申し込みます。

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団体名 又は氏名	※法人会員の場合は団体名、個人会員の場合は氏名を正式名称でご記入ください。当研究所のWEBに掲載させていただきます。			
代表者氏名	※個人会員の場合は記載不要 F D			
住 所	〒			
電話番号	※法人会員の場合は代表番号をご記入ください。 FAX番号			
入会理由 ※複数選択可	1. 研究開発内容に関心あり 2. 共同研究/共同提案等の実施等 3. コンサルティング(技術相談等)の活用 4. セミナー・交流会等の活用			
/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	5. 情報収集等 6. その他()			
申込口数	※番号にOをつけて、申込み口数をご記入ください。			
メールアドレス	※各種セミナーや講習会などのご案内や賛助会員様への連絡等をお送りする宛先になりますので、必ずご記入ください。			
WebページURL	※当研究所のWEBでのリンク設定を希望されない場合は、口にチェックを入れてください http:// □当研究所の賛助会員ページに上記URLをリンクすることに同意しません。			
;	※団体(法人会員)での申込みの際は以下もご記入ください。			
担当部署名				
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