



「日露間で活躍できるモノづくり中核人材の育成」 活動成果報告

Progress Report: Human Resource Program for Monodukuri Engineers in Japan and Russia

近畿大学
Kindai University



Kindai University

Human Resource Program for *Monodukuri* Engineer in Japan and Russia

Concept of the Project

- Core Human Resources Development in Monodukuri
- Practical Internship System in All Programs

Industry-University Collaborative Education Program

- Career Design for Russian students
- Business Chance for Students and Company in Japan and Russia

Spin-off Effect

- Overseas Industry-University Collaborative Human Resources Development Model in Monodukuri
- Human Network (Alumni Association in Russia)

■ Japan-Russia 1-semester two-way exchanges

[inbound]

- Engineering design
- Individual study
- Internship

[outbound]

- Project management

■ Master degree : 2 years

Ph.D. degree : 3 years

(Students can only enroll in Monodukuri program)

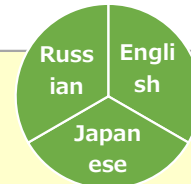
Degree program

Student exchange program

Personnel exchange program
(short-term)

■ Japan-Russia 2-weeks two-way exchanges

- Personal exchange, mutual Understanding and friendship
- Internship, introduction to Monodukuri



- Faculty of Science and Engineering (7 departments)
- Graduate School of Science and Engineering Research (*Monodukuri*)



11 Partner Universities in Russia

短期人材交流プログラム

Personnel exchange program
(Short-term)

- Personal exchange, mutual Understanding and friendship
Internship, introduction to Monodukuri
- Establishing the Science and Engineering Global Study
Group, and its activities



交換留学プログラム

Student exchange program

Internship at Companies with Spirits of Innovation and Craftsmanship (One month)

On-the-job training at the R&D facilities of companies based in Higashiosaka
Students are temporarily assigned to research facilities owned by companies based in Higashiosaka. These companies, which are all renowned for their technological expertise, provide students with valuable on-the-job training.

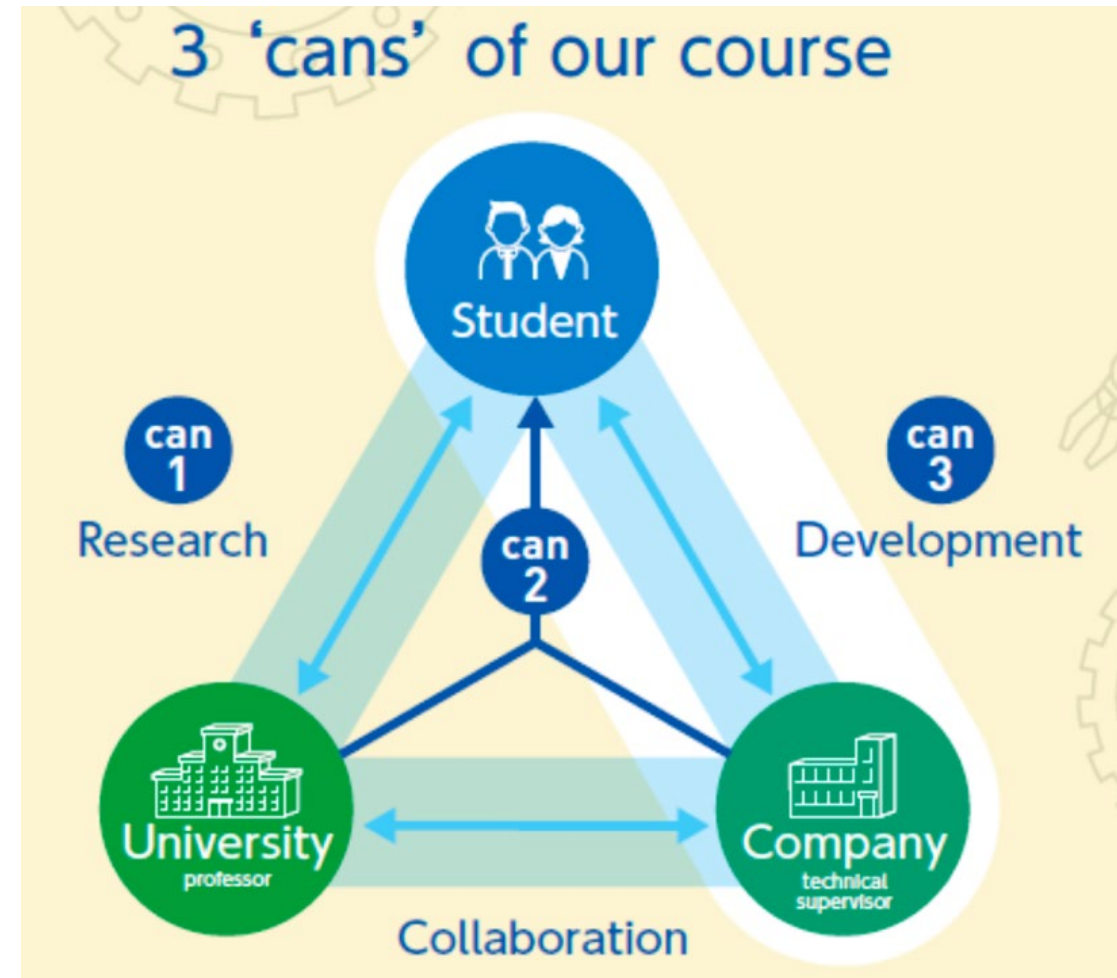


学位プログラム

Degree program

Graduate School of Science and Engineering Research - Major of Innovative Engineering

While engaging in highly specialized graduate studies, students in this course are temporarily assigned to research facilities owned by companies based in Higashiosaka. These companies, which are all renowned for their technological expertise, provide students with valuable on-the-job training.



交流学生数

Results of student mobility

The number of outbound (to Russia) /inbound (to Japan) students

		2017	2018	2019	2020	2021 (in progress)	Total
Out bound	Total	14	25	26	26	7	98
	1 semester exchange	0	4	5	0	3	12
Inbound	Total	10	32	25	27	10	104
	1 semester exchange/ degree	0	8	10	4	6	28

Don State Technical University,
Skolkovo Institute of Science and
Technology, Kazan Federal University
joined the project

First students enrolled in
"Monodukuri" Master's program.

COVID-19

Partner universities in Russia for Monodukuri Program

Name of University	
1	Lomonosov Moscow State University
2	Financial University
3	National Research Nuclear University (MEPhI)
4	Saint Petersburg State University
5	ITMO University
6	Dubna University
7	University of Tyumen
8	Far Eastern Federal University
9	Kazan Federal University
10	Don State Technical University
11	Skolkovo Institute of Science and Technology

進路実績

Career after graduation

Japanese students (participants in exchange program)

Category	Number	Name of institution or company
進学 Go on to graduate school	6	近畿大学大学院、東京工業大学大学院、大阪大学大学院、奈良先端科学技術大学院大学
就職 Employment	2	高松市役所、国際交流サービス協会（在トルコ日本国大使館派遣）

（在学中：4名）

Russian students (participants in exchange program & short-term program)

Category	Number	Name of institution or company
進学 Go on to graduate school	14	Kindai University, Kobe University, Saint Petersburg State University, Dubna State University, Imperial College London (UK), Maynooth University (Ireland), Technion Israel Institute of Technology (Israel)
就職 Employment	8	Reliability Engineer (oil and gas industry), Evrone, EPAM Systems, Bilfinger, Joint Institute for Nuclear Research, Ural Branch of the Russian Academy of Sciences

グローバル人材育成の場としての ロシア留学

Russia as a study destination for development
of global human resources

Outbound: Host universities and major (exchange program)

Host university	Major (number of students)
ITMO Univerisity	Informatics(3), Applied Chemistry(2) Life Science(1), Mechanical Engineering(1)
MEPhI University	Life Science(1), Civil and Environmental Engineering(1)
Dubna State University	Mechanical Engineering(1)
Kazan Federal University	Chemistry(1)

- ・ 伝統と強みを活かした理工系教育を受けられる
- ・ 英語でも学ぶことができる（欧米留学より低いハードル）
- ・ ハードな学習・生活を経験できる

Students' voices

ロシアで生活し実際に文化の違いや価値観の違いに触れることで、ロシアの歴史や宗教について勉強するようになりました。
（MEPhI/生命科学）

（留学先大学は）核物理学に特化していて全ての科目が核・原子力などに関連づけられていた。大学としてのレベルはロシア内ではトップクラス。正規の学生向けの授業・課題量はとても多く、過酷。（MEPhI/社会環境工学）

英語を話すことが恥ずかしいと感じる人でも英語圏でなく、みんな第二外国語として英語を話すのであまり恥ずかしいと感じないと思います。英語のスコアもそれほど高くなくても留学することができます。（ITMO/情報）

他の生徒の堂々と発表している姿をみてとても刺激を受けました。これからの卒論や私は進学も考えているので進学後でもプレゼン力は試されるため、有意義な経験になったと思います。
（MEPhI/生命科学）

宿題が山のように出されます、頭がパンクしそうです（ドゥブナ/機械工学）

授業にディスカッションがあったりするので、それにも苦労しています（ITMO/情報）

日本におけるロシア高度人材の活躍に向けて

Russian students as possible highly skilled workers in Japanese industry

Inbound: Home university and number of students

Name of University	Exchange program	Short-term program
Lomonosov Moscow State University	2	6
National Research Nuclear University (MEPhI)	3	3
Saint Petersburg State University	1	4
ITMO University	0	3
Dubna University	4	6
University of Tyumen	1	3
Far Eastern Federal University	5	5
Kazan Federal University	0	2
Don State Technical University	2	3
Skolkovo Institute of Science and Technology	0	1

- 日本のモノづくり技術・企業文化を実体験を通じて学べる
(learning “monodukuri” culture in practice)
- 専門分野での英語（日本語）コミュニケーション能力の向上
(communication skills in English and Japanese)
- 「研究室」での経験 (academic skills in laboratory)

Students' voices

It was also helpful during the job hunting process, since participating in exchange programs helps to show that you can freely communicate with international customers or colleagues. (DSTU)

Program has give me overview of a Monozukuri and Japan culture, . It has pushed me to learn deeper methods of work and Japan practices, I implement it during my work, for example principles of Kaizen. (FEFU/Reliability Engineer)

Before, I was mainly paying attention to western universities, but now I seriously consider continuing my education and some part of my career in Japan. (Tyumen/ Graduate Student)

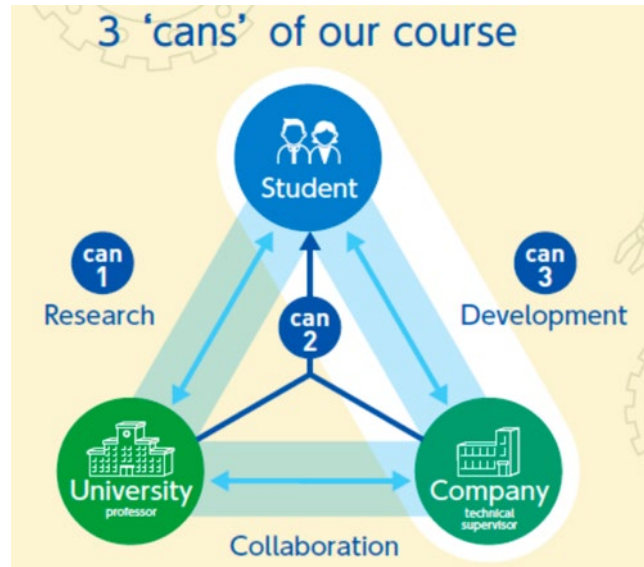
It helped me to vastly improve my communication skills as well as give me decent knowledge in my major. (Dubna/ Graduate Student)

日本におけるロシア高度人材の 活躍に向けて

Russian students as possible highly skilled
workers in Japanese industry

Result of program activities (cooperation with companies)

- 1セメスター交換留学でのインターンシップ受入れ企業：10社
- 大学院東大阪モノづくり専攻留学生の受入れ企業：3社



在学時

学生（学位、学修）
企業（国際化、開発）
大学（研究）

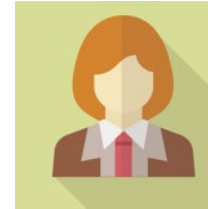
「三方良し」の活動が可能



就活時

ミスマッチの可能性

理工系
学生



- 専門分野直結の仕事をしたい
- 日本語はあまりできない、英語で仕事をしたい
- 日本の就活方法をよく知らない
- 特に日本にこだわらない

- ジェネラリストまたは現場要員を求む
- 日本語は必要
- 日本の企業文化に馴染んで欲しい

企業



※上記意見はあくまで一般的な傾向であり、本プログラム関係学生・企業の意見を代表するものではありません。

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