

KNOWLEDGE TRANSFER IN INTERNATIONAL COLLABORATION BETWEEN JAPAN ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (JAIST) AND UNIVERSITI KEBANGSAAN MALAYSIA (UKM)

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INTRODUCTION-JAIST

- Japan Advanced Institute of Science and Technology (JAIST) was founded in October 1990 as the first independent national graduate school.
- 3 graduate schools, 11 other research centres in JAIST.
- JAIST has actively worked on international collaborations with overseas research institutes through collaborative research and education programs.
- In the span of 25 years, JAIST has concluded academic exchange agreements with 114 institutes from 30 countries.
- In the field of S&T, JAIST is the most internationalised academic institute in Japan and currently, more than 30% of its students and 20% of its faculty members come from abroad.

JAIST MISSION - ASANO VISION 2020

JAIST goals are:

1. To develop **leaders** in society or the industry who hold credible expertise in the frontier of science and technology, possess broad perspectives, a high level of autonomy, and communication ability, through its systematic, advanced graduate education.
2. To contribute to **societies** with research outcomes, create a centre of excellence for advancement of researches for solving problems of our world and society, and develop new fields through a variety of basic researches.
3. To foster active **global human resources** by promoting faculty and student exchanges with leading institutes overseas towards the **globalisation of education and research**.

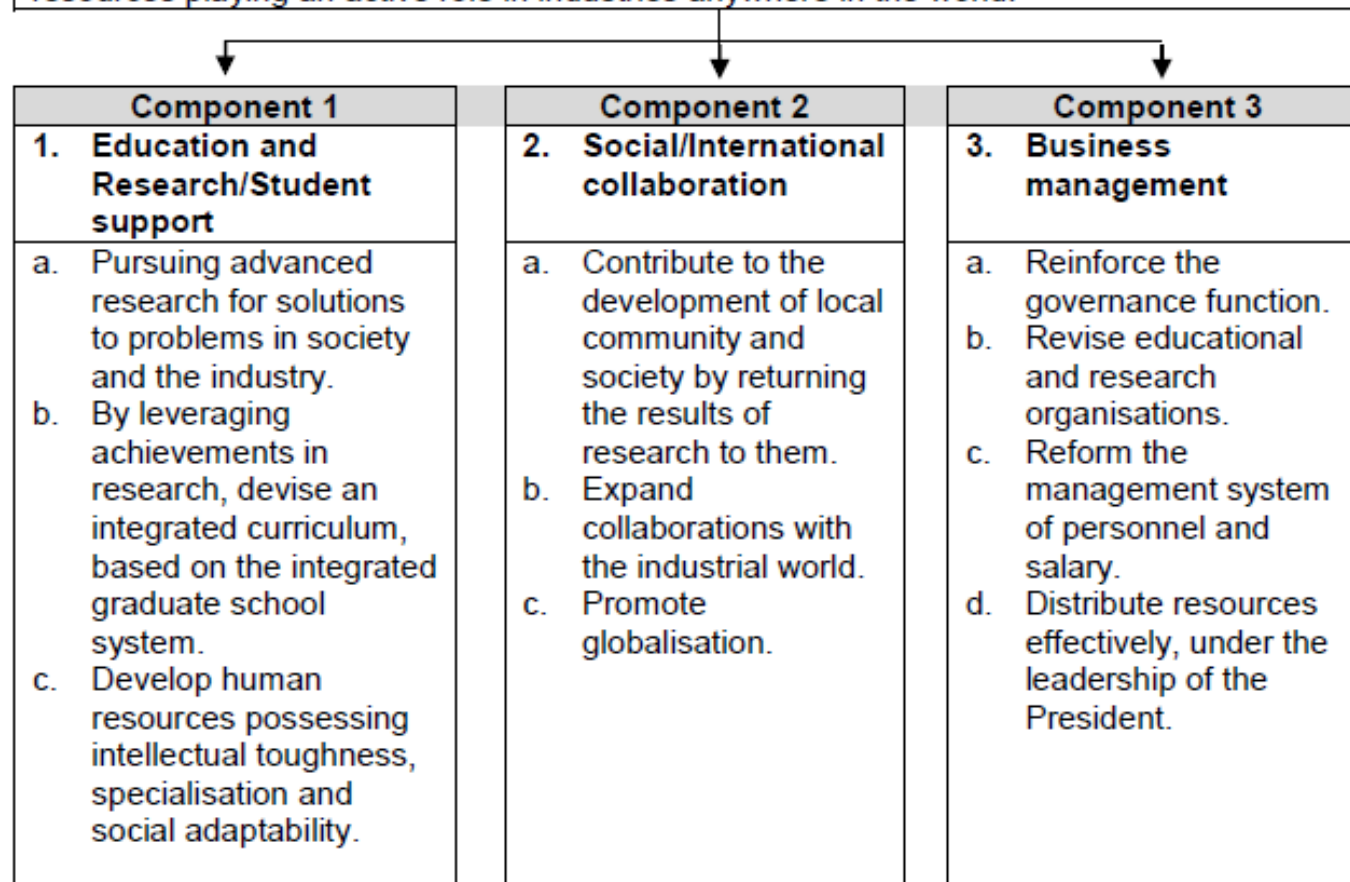
ASANO VISION 2020

Mission

JAIST contributes to innovation in education and local community development by taking advantage of its characteristics as a graduate university, developing global human resources, taking an active role in the industry and the world, and pursuing research for the resolution of social issues in a combined disciplinary setting.

Vision

By 2020, JAIST will establish its position as a needs-oriented research university with integrated graduate schools. With a master's or doctoral degree and the intellectual toughness earned at JAIST, our graduates will become highly valued individual human resources playing an active role in industries anywhere in the world.



INTRODUCTION-UKM

- Universiti Kebangsaan Malaysia (UKM) was founded in May 18, 1970 and appointed as one of the five research universities in Malaysia in 2006 based on its excellent record in research.
- UKM has 13 faculties, a Graduate School of Business (GSB-UKM), as well as 16 research institutes of excellence in education.
- The role of UKM as the “*guardian of the nation*”
- Six Key Results Areas (KRAs) are introduced to ensure UKM is *relevant, referred, and respected*.

UNIVERSITI KEBANGSAAN MALAYSIA - KEY RESULTS AREA (KRA)

KRA#1: Nationally-Aspiring Graduates, Competent, Competitive, and Innovative

KRA#2: Highly Impactful Research and Innovation

KRA#3: Smart Partnerships and Strategic Engagement

KRA#4: Institution and Human Resource Excellence

KRA#5: Strategic and Optimum Wealth Generation

KRA#6: Conducive Infrastructure and Knowledge Environment



MAPPING BETWEEN VISION COMPONENT & KRA

JAIST ASANO VISION 2020	UKM KEY RESULT AREA					
	KRA 1	KRA 2	KRA 3	KRA 4	KRA 5	KRA 6
Component 1 (C1) Education and Research/Student support	√					
Component 2 (C2) Social/International collaboration		√	√	√		√
Component 3 (C3) Business management				√	√	

JAIST & UKM COLLABORATION ACTIVITIES

JAIST has concluded the Memorandum of Understanding (MoU) with 9 universities in Malaysia such as :

1. Universiti Malaysia Sarawak (UNIMAS) - 2010.5.26
2. Universiti Teknologi Malaysia (UTM) - 2010.6.25
3. Universiti Malaya (UM) - 2010.11.22
4. Universiti Teknologi Mara (UiTM) - 2011.12.19
5. Universiti Sains Malaysia (USM) - 2012.4.9
6. Universiti Kebangsaan Malaysia (UKM) - 2013.6.4
7. Universiti Teknikal Malaysia Melaka (UTeM) - 2013.6.11
8. Universiti Malaysia Sabah (UMS) - 2014.8.29
9. Universiti Tenaga Nasional (UNITEN) - 2015.5.13

JAIST & UKM COLLABORATION ACTIVITIES

Types of collaboration	Activities	Component and KRA
1. International advanced seminar	<ul style="list-style-type: none"> • JAIST Symposium on Advanced Science and Technology, JAIST SAST (Nov 10-12, 2015) at JAIST. <ul style="list-style-type: none"> ○ 2nd Malaysia-Japan Joint Symposium on Nanoelectronics 2015 ○ 3rd Malaysia-Japan Workshop on Advanced Science and Technology 2015 • 1st Malaysia-Japan Joint Symposium on Nanotechnology 2014 (Dec 10-11, 2014) at IMEN, UKM. • 2nd Asean - Japan Workshop on Information Science and Technology (June 10 – 12, 2014) at FTSM, UKM. • 1st Malaysia-Japan Workshop on Advanced Technology for Information and Knowledge (June 3-6, 2013) at JAIST. 	<p>C2 (Social/International collaboration)</p> <p>KRA2 (Highly Impactful Research and Innovation)</p> <p>KRA3 (Smart Partnerships and Strategic Engagement)</p>

FTSM=Faculty of Information Science & Technology, UKM [School of Information Science, JAIST]

IMEN=Institute of Microengineering and Nanoelectronics, UKM [School of Material Science, JAIST]

JAIST & UKM COLLABORATION ACTIVITIES

Types of collaboration	Activities	Component and KRA
2. Award/ Student internship	<ul style="list-style-type: none"> • 2 postgraduate interns from School of Information Science, JAIST will be doing their internship at FTSM, UKM (Dec, 2015) • JAIST has granted a program 'JAIST 2016 Master Research Fellow for Malaysian Students' in the area of advanced Science & Technology. • 3 postgraduate interns from FTSM, UKM are doing their internship at the School of Information Science, JAIST. • 6 postgraduate interns from IMEN, UKM are doing their internship at the School of Material Science, JAIST. • 5 undergraduate interns from FTSM, UKM are doing their internship at the School of Information Science, JAIST. 	<p>C1 (Education and Research/Student support)</p> <p>KRA1 (Nationally-Aspiring Graduates, Competent, Competitive, and Innovative)</p>

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JAIST & UKM COLLABORATION ACTIVITIES

Types of collaboration	Activities	Component and KRA
3. Course/s	<p>Short course at FTSM, UKM on:</p> <ul style="list-style-type: none">• Formal Method - SAT / MAT Solvers (Dec 12, 2013).• Malware analysis (May 11, 2015).	<p>C2 (Social/International collaboration)</p> <p>KRA2 (Highly Impactful Research and Innovation)</p> <p>KRA3 (Smart Partnerships and Strategic Engagement)</p>

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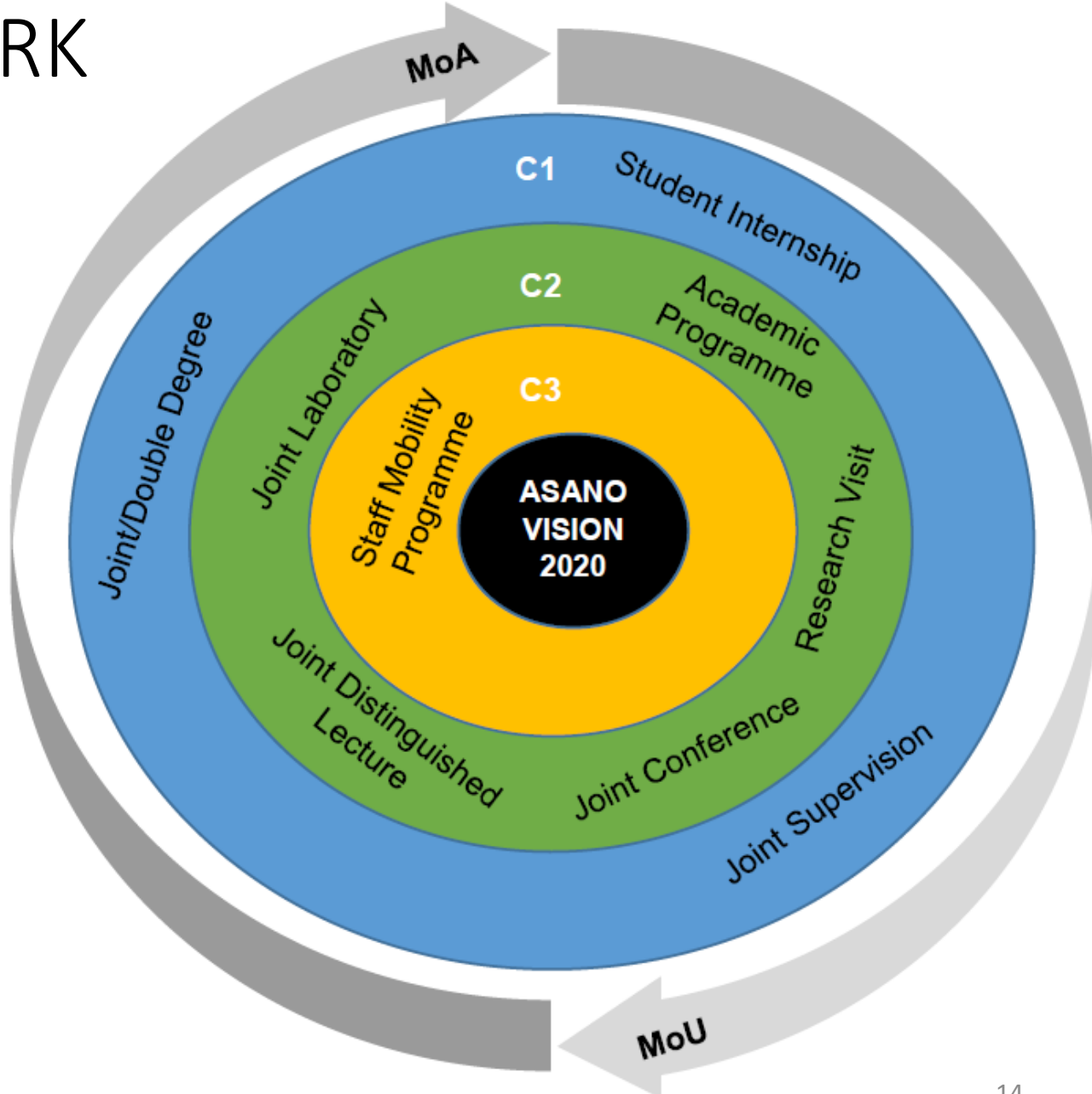
JAIST & UKM COLLABORATION ACTIVITIES

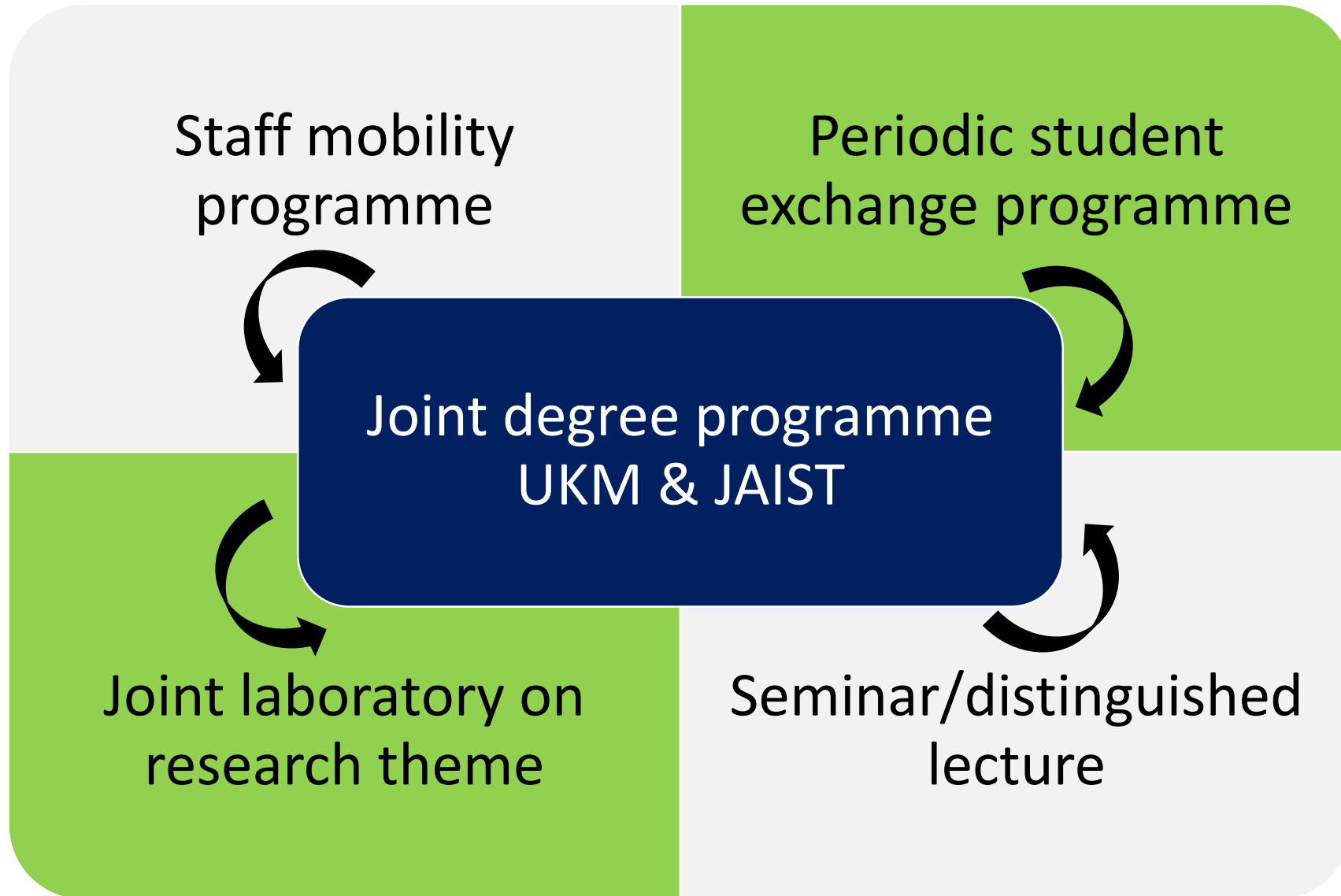
Types of collaboration	Activities	Component and KRA
4. Academic and research programme	<ul style="list-style-type: none"> • PhD research co-supervision between researchers from FTSM, UKM and School of Information Science, JAIST. • Postdoctoral research program at School of Information Science, JAIST. • Research visit to School of Information Science, JAIST. • Associate Editor (International) from JAIST for Asia-Pacific Journal of Information Technology and Multimedia (APJITM) of FTSM, UKM. 	<p>C1 (Education and Research/Student support) C2 (Social/International collaboration)</p> <p>KRA2 (Highly Impactful Research and Innovation) KRA3 (Smart Partnerships and Strategic Engagement) KRA4 (Institution and Human Resource Excellence) KRA6 (Conducive Infrastructure and Knowledge Environment)</p>

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STRATEGIES & FRAMEWORK





CONCLUSION

- We shared best practices, expertise, infrastructure, and culture with respect to knowledge transfer from both institutions.
- We aim in achieving excellence in graduate education and research by combining the best competencies, teaching traditions and research environments in the two countries.
- The successful way to sustain excellence in international collaborations should be through clearly focused activities which will benefit fund application and improve impact in the long term.
- Strategic collaborations should be planned and managed in order to achieve the Asano Vision by 2020 and to support the KRAs of UKM.