Programme Review Report

**Bachelor of Science in Computer Science International
(Korean and European Double Degree)/TU858**

Version of Report	Author	Date
1.0	Gráinne Hurley	04/03/2024
1.1	Michael Collins	06/03/2024
		Click or tap to enter a date.
		Click or tap to enter a date.

Approval	Date
Documentation for Review approved by Faculty Board	23/11/2023
Report of Programme Review Panel approved by AQAEC	30/01/2024
New Programme Title approved by University Programmes Board (if applicable)	N/A (Programme already approved)

Section A	Programme Details

Title	Bachelor of Science in Computer Science International (Korea and European Double Degree)
NFQ Level	7
ECTS Credits	60 credits (TU Dublin students must achieve 240 ECTS, of which 60 are taken on exchange at KNU, and KNU students must achieve 180 ECTS in years 1-3, of which 60 ECTS are taken on exchange at TU Dublin).
Mode of delivery	Part-time ☐ Full-time ✓
Durationy	Part-time: Full-time:
Modality/ies of delivery	In-person, Blended ✓ On-campus ✓
	Online ☐ Hyflex ☐
Classification of award	TU Dublin Classification: First Class Honours (70% and upwards); Second Class Honours, Upper Division (60-69%); Second Class Honours, Lower Division (50-59%) and Pass (40-49%). The KNU award is unclassified.
Discipline Programmes Board	Computer Science
Faculty Boardk	Faculty of Computing
Schools involved in delivery	School of Computer Science

Delivery location	Dublin, Ireland (City Campus) and Daegu, Korea
Collaborative Partner (where applicable)	Kyungpook National University (KNU)
Date of Commencement of revised programme	September 2024

Section B	**Awards**

Award Title	TU Dublin award: Bachelor of Science in Computer Science International (Level 7). KNU award: Bachelor of Science in Computer Science and Engineering.
NFQ Level	7
Award Class	Major
ECTS Credits	60 (TU Dublin students must achieve 240 ECTS, of which 60 are taken on exchange at KNU, and KNU students must achieve 180 ECTS in years 1-3, of which 60 ECTS are taken on exchange at TU Dublin).
Classification of award	TU Dublin Classification: First Class Honours (70% and upwards); Second Class Honours, Upper Division (60-69%); Second Class Honours, Lower Division (50-59%) and Pass (40-49%). The KNU award is unclassified.
Award (1) Title	
Exit/Embedded	Exit ☐ Embedded ☐
NNFQ Level	Select Level
Award Class	Choose an item.
ECTS Credits	
Classification of award	

Section C - Programme Derogations (if required)

Derogations from Assessment Regulations/Marks and Standards, requiring approval by University Programmes Board	
University Programmes Board Approval	Date

Section D	**Review Process**

Date of Programme Review	29/02/2024

Context for Programme Review
How was the programme review process instigated, by whom/via which process?
The 5-year period expired at the end of the academic year 2022/23. This is the second review.

Please tick the type of programme review undertaken:

Full Programme Review ☐	Focused Programme Review ✓
If a focused programme review, what is/are the area(s) of focus? The focus of this review is on the arrangement between the two existing and validated programmes, in terms of student supports and experience, mapping and other pertinent arrangements between the two partners. The programmes themselves are not under review nor are there any new modules for consideration. This 4-year dual degree is a KEDDIT (Korea and European Double Degree in Information Technology) arrangement between Technological University Dublin (TU Dublin) School of Computer Science and Kyungpook National University (KNU), School of Computer Science and Engineering, whereby students engage in an exchange programme with the partner university for a full academic year (two semesters). TU Dublin students spend year 3 at KNU (60 ECTS) and complete year 4 at TU Dublin, which includes the final year project. KNU students complete year 3 at TU Dublin (60 ECTS), which includes a project (10 ECTS). The credits achieved are recognised and transferred to the student's home university. Successful TU Dublin students who meet the KNU requirements for a dual degree will be awarded a KNU Bachelor of Science award, in addition to their TU Dublin Bachelor of Science award (Level 8). KNU students who meet the TU Dublin requirements for the dual degree will be awarded a TU Bachelor of Science award (Level 7), in addition to their KNU Bachelor of Science award.	

Transitional arrangements	
How will changes to revised programme be implemented, i.e. to be implemented with immediate effect in the next academic year of delivery, or phased in on a year-by-year basis.	
With immediate effect in the next academic year of delivery.	

Panel Members

Name	Role	Affiliation
Dr Ciarán O'Leary	Chairperson	Head of Learning Development, Faculty of Computing, Digital & Data
Dr Martin McHugh	External Panel Member	Head of Department of Visual and Human-Centred Computing, Dundalk Institute of Technology (DkIT)
Dr Susan Lazarus	Internal Panel Member	Lecturer, School of Mathematics and Statistics
Dr Rajesh Jaiswal	Internal Panel Member	Lecturer, School of Enterprise Computing and Digital Transformation
Dr Gráinne Hurley	Internal Panel Member	Academic Quality Advisor, Quality Framework, Academic Affairs

Schedule of Meetings

9:45 am	Introduction
9:50 am	Presentation by School and Partner
10:05 am	Private Meeting of Panel
10:30 am:	Meeting with TU Dublin students who participated in the dual degree
11:00 am	Meeting with School and Partner Management and Teaching Team
12:00 pm	Private Meeting of Panel
12:20 pm:	Report to School

Section E	Programme Evaluation

Programme Review Process		
Was the programme review conducted in accordance with the Programme Review Process, i.e. were current students, graduates, employers, other appropriate stakeholders involved in the review process?	Yes ✓	No ☐
Comment: The panel met with representatives of Technological University Dublin and Kyungpook National University (KNU), as well as past participants on the programme, as part of the review process. The panel met with the following representatives of the School of Computer Science, TU Dublin: • Dr Paul Doyle, Head of School of Computer Science • Mr Brian Gillespie, Head of Software Engineering, School of Computer Science • Dr Michael Collins, International Partnership Developer, School of Computer Science, • Dr Marisa Llorens Salvador, Programme Coordinator, BSc Computer Science (International) • Ms Samantha Peavoy, International Coordinator, Faculty of Computing, Digital and Data The panel also met with the following representatives of the School of Computer Science and Engineering, KNU: • Prof. Soon Ki Jung, Head, Graduate School of Computer Science and Engineering, KNU • Prof. Kyong Hoon Kim, Head of the School of Computer Science and Engineering, KNU • Ms. Saeron Lee, International Program Manager, Office of International Affairs, KNU • Ms. Haejin Shin, Inbound Exchange Coordinator, Office of International Affairs, KNU In addition, the panel met with the following students of the programme: • Mr. Myungbin Son (KNU) • Ms. Mariana Pirtac (TU Dublin) • Ms. Iman Rostam (TU Dublin) • Mr. Djibril Coulybaly (TU Dublin)		

Governance & Management		
Does the programme align with the University's Strategic Plan and the principles of the University Education Model, and relevant policies?	Yes ✓	No ☐
Comment: The programme aligns with the university's *Strategic Intent 2030*, as evidenced in the School's commitment to fostering and growing global partnerships and providing a transformative, life-enhancing educational experience by enabling students to study abroad. The programme also embraces the philosophy of the University Education Model's student-centred holistic approach and its inclusive, global and multicultural outlook, which seeks to provide an internationalised curriculum through fostering strong international partnerships and exchange of students in a technology enhanced learning environment.		
Do the Programme Management and Quality Assurance arrangements align to TU Dublin Quality Framework processes?	Yes ✓	No ☐
Comment:		
Has the Annual Monitoring/Academic Quality Enhancement process been used to identify issues and actions that continually enhance the programme and student learning experience?	Yes ☐	No ✓
Comment: Annual Monitoring took place through the BSc Computer Science (International), that hosts the participants in this dual degree programme and the other Dual Degree programmes in the School. It has been agreed, going forward, that an appendix will be added to the Annual Monitoring form for that programme that will deal specifically with the dual degree programmes. Currently, reviews take place at the end of each academic year, based on regular communications with School managers, in order to make improvements for future KEDDIT student cohorts. The School informed the panel that it has recently appointed an International Academic Co-ordinator, who will be responsible for this coordinating reviews going forward.		

Student Data		
On consideration of student recruitment data, is there evidence that there continues to be a market demand for the programme and that the programme remains viable?	Yes ✓	No ☐
Comment: While numbers have been relatively low (20 students have participated in the Double Degree between the academic years 2018/19 and 2022/23, with a marked decline in uptake during the Covid-19 Pandemic and the ensuing global travel restrictions), there is however a significant spike in demand for the next intake of the programme, no doubt boosted by the extremely positive student feedback as well as the promotional efforts of the Schools involved. Past participants, who met with the panel, lauded the exchange as a valuable, holistic and life-enhancing experience. The School, recognising the value in sharing this experience with potential future participants, intend to facilitate year 4 students and/or graduates, who have participated in the dual degree exchange at KNU, to give a talk and presentation to year 2 students. The School of Computer Science has observed a marked increase in the number of students choosing to study the Korean language, with Korea fast becoming a very attractive destination for TU Dublin students. Both Schools envisage that they can target and accommodate an intake of 10 students. The impressive congenial collaboration between TU Dublin and KNU and their combined flexibility and responsiveness to the demand for the programme and needs of students is a positive and encouraging sign for the future of the programme and the partnership.		

On consideration of student engagement, performance and progression data, are students engaging with their programme and performing as expected? If not, has this been acknowledged and addressed through the programme review process?	Yes ✓	No ☐
Comment: There is a 100% progression and completion rate on this programme. The participants of the programme who met with the panel were very focused, diligent and fully engaged with the programme.		
On consideration of graduate destination data, is there evidence that students are securing employment in the field or progressing to further study in the discipline?	Yes ✓	No ☐
Comment: The School keeps in touch with the graduates to ascertain their progression/destinations. Going forward this information will be captured in a more formalised manner. The past participants on the programme who met with the panel expressed how they felt the overall international experience enhanced their employability prospects.		

Awards Standards		
Are the programme aims and learning outcomes clearly written using appropriate terminology?	Yes ✓	No ☐
Comment:		
Are the programme aims and learning outcomes aligned to the proposed level of the award on the NFQ in accordance with applicable Award Standards?	Yes ✓	No ☐
Comment:		
Will the curricula, teaching, learning and assessment methods enable students to reach the appropriate standard to qualify for the award(s)?	Yes ✓	No ☐
Comment:		
Is ongoing programme development appropriately informed by internal and external stakeholder input (including industry/practice, professional/regulatory bodies, and community organisations)?	Yes ✓	No ☐
Comment:		
Does ongoing programme development take account of relevant external discipline benchmarks and Professional Statutory and Regulatory Body requirements?	Yes ✓	No ☐
Comment:		

Programme Design		
Is the programme design informed by current development in the discipline and associated subject areas, having taken into consideration current trends, stakeholder feedback and market analysis?	Yes ✓	No ☐
Comment:		
Is there a mechanism to ensure the input of external stakeholders in the ongoing development of the programme?	Yes ✓	No ☐
Comment:		
Is the programme curriculum well-structured with a logical progression of learning and development across the modules and stages?	Yes ✓	No ☐
Comment:		
Are there appropriate opportunities for students to undertake work-based learning, through work placements or work-based projects or assignments?	Yes ✓	No ☐
Comment: TU Dublin students can avail of work placements (non-credit) while in Korea. Based on past participant feedback, this was a positive and worthwhile experience which intensified the international experience. The KNU student successfully secured work experience at a multinational technology company while in Dublin, which he considered a big draw to undertaking the programme and coming to Dublin.		
Are work/practice placements appropriate and fit for purpose, having regard to the requirements of professional, regulatory, and associative bodies where applicable, in the context of student achievement of learning outcomes and in the overall student experience?	Yes ☐	No ☐
Comment:		
If applicable, have the relevant Blended Learning Checklists (i.e. Learning Experience Context & Programme Context) been fully completed and submitted to the Panel?	Yes ☐	No ☐
Comment:		
Is the required programme and module information provided in the correct format?	Yes ☐	No ☐
Comment:		

Learning, Teaching & Assessment		
Is there an effective student-centred learning and teaching strategy that aligns with the University's strategies and guidelines in this regard?	Yes ✓	No ☐
Comment:		
Does the assessment strategy provide an appropriate mix of assessment types that will enable students to demonstrate that they have met the module and programme learning outcomes?	Yes ✓	No ☐
Comment:		

Do the learning outcomes and assessment strategy ensure that academic integrity can be maintained and attempted breaches of academic integrity are minimised/easily detected?	Yes ✓	No ☐
Comment:		
Is there a comprehensive mapping of assessment methods and module learning outcomes and between module learning outcomes and programme learning outcomes?	Yes ✓	No ☐
Comment:		
Are there opportunities in all modules to provide students with timely and constructive feedback on their learning and development?	Yes ✓	No ☐
Comment:		
Do the teaching and assessment methods consider the diversity of the student cohort?	Yes ✓	No ☐
Comment: All of the modules are delivered through the English language. To aid the assimilation of students, modules such as Irish Cultural Studies, English for Academic Purposes and Korean language are offered to students. The rules of the KEDDIT exchange allow for a maximum of 10 ECTS of non-technical modules to count toward the required 50 ECTS modular study		

Student Supports & Learning Environment		
Are there sufficient and appropriate resources (e.g. human, financial and physical) to support the proposed programme aims and objectives, to deliver the programme as specified?	Yes ✓	No ☐
Comment: During the 2018/19–2022/23 KEDDIT agreement term with KNU, there was no income or expenditure costs to TU Dublin. Participant students paid all tuition fees at their home university only as well as all associated costs relating to their year-long exchange, e.g., living costs, housing, etc., It is agreed between TU Dublin and KNU that the same financial arrangements will apply in the renewal of this agreement.		
Are there sufficient staff that are appropriately qualified and capable to support the programme delivery?	Yes ✓	No ☐
Comment: The staff in both TU Dublin and KNU School are highly qualified academically with deep research and industry-based experience. Many have experience in teaching at KNU.		
Are there appropriate arrangements in place to support the student experience and to monitor student performance?	Yes ✓	No ☐
Comment: Staff at both universities offer continuous support to students. An induction week for international students takes place at Grangegorman two weeks before the commencement of the academic term. This is an opportunity to address academic, practical and general matters. It also gives students the opportunity to acclimatise by meeting other international students and partaking in cultural trips and social events. The fact that many of the TU Dublin lecturers have experience teaching at KNU gives them a greater understanding of the difference in culture and expectations of students. KNU offers orientation each semester for new international students to help them quickly adapt to life in Korea. It is an opportunity to gain valuable information, meet students and attend social events. The responsiveness and commitment of staff in supporting exchange students		

and providing them with a positive international experience was noted and appreciated by the past participants who met with the panel. Monitoring of student performance is dealt with below.

Are the access, transfer and progression arrangements including RPL clearly defined and appropriate, and aligned to TU Dublin policy/strategy in this regard?	Yes ✓	No ☐
Comment:		
Do the student supports and learning environment cater for equality, diversity and inclusivity of students?	Yes ✓	No ☐
Comment: TU Dublin is committed to actively fostering an inclusive, diverse, safe and respectful institutional culture. This commitment is embedded in <u>TU Dublin Strategic Intent 2030</u>, which is informed by Sustainable Development Goal 4 - 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.'		
Is the relevant programme information clearly communicated to the students to ensure they are informed, guided and cared for?	Yes ☐	No ☐
Comment: Yes. This information is provided in the Study Exchange Student Handbook & Pre-Departure Pack which provides practical advice on visas, insurance etc., as well as details of the modules offered, the project to be undertaken, assessment, and student support services. Each year, relevant staff in the School of Computer Science give presentations to all full-time undergraduate year 2 students about the KEDDIT programme at KNU during year 3. Where possible, previous KEDDIT student participants and graduates are also invited to attend and discuss their experience. Approximately two weeks prior to the commencement of each semester, relevant staff in the School send the list of modules being offered to all incoming exchange students. During the induction week on campus, relevant staff in the School arrange a meeting with the incoming KNU students and give a detailed presentation about each module being offered. A question-and-answer session allows the students to get more information so they can make an informed decision on any option module(s) they wish to study. TU Dublin staff offer continuous support to the KNU students throughout this module selection process and can arrange one-to-one meetings to help and guide them if required. A couple of past participants who met with the panel raised the issue that they felt somewhat ill-prepared in terms of their module selection at KNU, for example, some modules signed up for were delivered through the Korean language and so had to be swapped, and some lab modules needed to be selected well in advance in order to guarantee a place, due to limited numbers. However, it must be pointed out that any such issues that arose were dealt with swiftly by KNU lecturers and resolved with a satisfactory outcome for the student. Also, it should be made explicit to students that if they fail to attend 25% of classes at KNU, they will not pass.		

Collaborative Provision (if applicable)		
Are the roles and responsibilities of each partner clearly defined?	Yes ✓	No ☐
Comment:		
In the case of Joint or Multiple Awards, has due diligence on the capacity of the partner institution to meet the QA/QE requirements for the programme been undertaken?	Yes ☐	No ☐
Comment:		

Section F		Overall Recommendation of the Panel	

1.	**Recommend continuing approval of programme as submitted, without amendment**	☒
2.	**Recommend continuing approval of programme, subject to minor amendments/editorial changes to be completed as soon as possible and with recommendations for consideration.** **Note:** recommendations are attached where it is considered that the programme would benefit from particular changes, or from a review of certain aspects of the programme over a period of time, with changes made if required. While recommendations are advisory in nature, there is an expectation that all recommendations are responded to appropriately and acted upon as appropriate.	☐
3.	**Recommend continuing approval of programme subject to the fulfilment of conditions. Recommendations for consideration may also be attached.** **Note:** conditions are attached where it is agreed that changes must be made to the programme / programme documentation prior to the commencement of the programme. Conditions must be set where issues are identified that relate directly to academic standards or to University regulations or procedures. It should be clear what is required in order to meet the conditions. A new programme cannot go forward to Faculty Board for consideration unless a response to the Review Report is submitted with revised programme documentation.	☐
4.	**Do not recommend continuing approval of programme.**	☐

Areas for commendation
Student Experience – the panel were very impressed with the past participants' feedback on their experience, both in Korea and Ireland, which some described as being a 'highlight of life so far'. Clearly, they had a very productive time and positive international experience in their respective universities. The holistic approach taken by both universities, which included organised social events and non-technical modules, resulted in participants embracing the partner country's language, history and culture and integrating into university and social life. Students found the lecturers in both locations to be very responsive, helpful and accommodating.
Internationalisation – the panel found the overall holistic student-centred approach to internationalisation very impressive, from the positive student experience expressed by the past participants, the internationalisation of the curriculum and organised social events to the evident collegial collaboration between TU Dublin and KNU and its commitment to the future of the programme and the partnership.
Future Interest – the increase in demand for this dual degree, sparked largely by the positive experience of returning students, reflects the success of the programme and the universities' commitment to ensuring that participants have a seamless, rounded and transformative international learning experience.

	Mapping – a clear mapping of modules, both technical and non-technical, between the two programmes was provided to the panel, which was very helpful in identifying the equivalence between the two degree programmes and any overlapping features.

Conditions of Approval	
1.	A plan has been agreed for the incorporation of the annual review outcomes into the annual monitoring forms. This will need to be implemented going forward to deal specifically with the Dual Degree programme in the context of the monitoring of the BSc Computer Science (International).
	Response: The International Academic Mentor in the School of Computer Science, with input from the International Officer for the Faculty of Computing, Digital and Data (Ms. Samantha Peavoy), will provide a formal annual review document for international student returns, which will be included in the annual Q5 quality assurance return for the BSc. in Computer Science International (TU858) programme.
2.	
	Response:
2.	
	Response:

Recommendations	
1.	There is a need to ensure that students are furnished with the list of modules on offer prior to their departure and that they are well informed when it comes to selecting their modules, in order to give them the best opportunity to gain the ultimate learning experience during their time at the respective universities. For example, some participants unknowingly enrolled on modules delivered through the Korean language, which had to be subsequently swapped for modules delivered through English. Students should be made aware that some lab modules need to be booked well in advance, in order to guarantee a place, due to limited numbers. Also, participants should be informed of the possibility of taking modules during the winter period at KNU, as this option was appealing to those who wished to spread the heavy workload. There is a need to make explicit the KNU rule that if students miss 25% attendance, they will not pass the programme.
	Response: KNU facilitates the first-semester course registration for double degree students by configuring students' first semester courses and handling course registration on our end. Students are relieved from setting their first-semester courses; however, they are required to independently select and register for second-semester courses through the KNU portal system. KNU will promptly notify students each semester in the event of class absence rates exceeding 25%, resulting in a grade of F (fail). Once modules at KNU are confirmed running a few weeks prior to the start of the semester, the module list will be sent to the Faculty International Officer at TU Dublin who will distribute this to participant TU858 students.

2.	Ensure that the mandatory modules are available and can be timetabled.
	Response: **KNU**: The KNU Faculty of Computer Science and Engineering is committed to consistently offering core courses (modules) each semester. This ensures that double degree students can register for these courses (modules) according to their home university programme requirements. **TU Dublin**: Places on all mandatory modules will be guaranteed and made available to KNU students participating on the double degree exchange at TU Dublin. All mandatory modules are fully timetabled on the TU858 year 3 programme and available to students on the TU Dublin electronic timetable system.
3.	Continue to make efforts to promote, recruit and increase numbers. Engaging past participants of the programme to share their experience with potential applicants is highly encouraged, especially given the incredibly positive feedback received from the students who met with the panel during the review process.
	Response: Staff from the respective Schools/Departments and International Offices at both universities will actively promote this double degree to students from year 1 onward. This will involve face-to-face information sessions, email notifications, and promotional material on the School/Department website. Additionally, former student participants on this double degree from both universities will be invited to various information sessions and discuss their experience spending year 3 on exchange and answer any questions from interested students.

Other matters to be brought to the attention of Faculty Board and/or Academic Quality Assurance & Enhancement Committee

Section G   **Approvals**

Review Report
This Review Report has been agreed by the Review Panel and is signed on its behalf by the Panel Chair.

Dr Ciarán O'Leary	

School Response	
The response to the conditions and recommendations has been agreed by the School and is signed by the Head of School.	
Dr. Paul Doyle Head, School of Computer Science	

Faculty Board	
The report and response have been approved by Faculty Board	
Professor Pramod Pathak Dean, Faculty of Computing, Digital & Data	
Signed:	Date: 28/03/2024

Academic Quality Assurance & Enhancement Committee	
The report and response have been approved by the Academic Quality Assurance & Enhancement Committee	
Head of Academic Affairs:	
Signed:	Date: Click or tap to enter a date.