Proposal for New Degree Programme

Stage 1

Contents

OVERVIEW OF PROGRAMME

Grey text has been added to provide guidance. Please delete as you add your own text, remove italics, and change the font colour to black.

ABOUT THE PROGRAMME		
Title of programme	PhD in Security, Privacy and Trust	
Intended Award	PhD	
Alternative awards	N/A	
School	School of Informatics	
Programme Director	Prof. Aggelos Kiayias, Dr. Tiejun Ma, Dr. Kami Vaniea	
Programme start dates	01/09/2019	
SCQF level of highest award	12	
Total credit value of programme *(for highest award)*	720	
Partner institution(s) if any		
Mode of delivery *(Please ✔ those which apply to this programme)*	On campus	✔
	Online	
	Blended learning	
	FT	✔

	PT		
	Intermittent		
Expected length of programme	FT	**4 years**	
	PT		
	Intermittent		

Description of the programme and its structure (maximum 150 words)

The CDT will support a minimum of 50 students over five cohorts. The cohort model will encourage productive collaborations and interactions needed to deliver a step change in addressing problems related to trust, identity, privacy, and security in digital systems. The approach envisioned will include peer mentoring, developing a sense of group cohesion, peer-to-peer and student-led learning, a rich events programme, and a physical environment designed to encourage research interaction. The programme will provide an MSc by Research + PhD (1 year + 3 year). Each student will be assigned two supervisors, either both from the School of Informatics, or a primary supervisor from a school of either Law, Business, Political Science, Design, Mathematics, and a secondary supervisor from Informatics. The supervisors that participate are world leading experts in their respective areas with wide contributions in research topics that relate to security, privacy and trust.

Career, employability and opportunities for continuing professional development.

The increasing reliance of systems and services on information technology in the public, private and third sector has significantly raised the impact of cyber attacks in the last two decades. The EPSRC Centre for Doctoral Training (CDT) in Security, Privacy and Trust is a response to the growing need for highly specialized training in this area.   The centre will produce the next generation of cyber security leaders with in-depth technical knowledge and the necessary breadth to provide solutions to cyber security problems that require interdisciplinary understanding how business processes, cost, usability, trust and the law play a role for effective technology deployment

BUSINESS CASE

This section should be used to outline the business case for the proposed programme. Before completing this section market research should have been undertaken.

STRATEGIC PLANNING, RECRUITMENT & COMPETITOR ANALYSIS	
Programme Title	PhD in Security, Privacy and Trust
Programme Proposer	Prof. Aggelos Kiayias, Dr. Tiejun Ma, Dr. Kami Vaniea.
Strategic Planning	We will offer a comprehensive PhD programme in Security Privacy and Trust, which is an area of critical importance and well recognised as a national need. The funding will be (mostly) provided by the EPSRC (about £6.5M over 8 years) as well as a network of 46 partners offering £3.5M in cash and £28M in kind contributions. We expect an intake of at least 10 students per year for five years.
Recruitment *Please provide a detailed commentary on your marketing and recruitment strategy.*	Demand for experts in security, privacy and trust is extremely high. The recruitment strategy will follow the plan for previous and concurrent CDTs. A feature of this programme is that applicants with various different backgrounds are sought, including legal, business, economics and political science. The marketing strategy should highlight the importance of cyber security, We do anticipate that our existing programmes will benefit from the proposed programme given its complementarity and its high profile while there will be no negative effects. The graduates are expected to find employment both in academia and in the industry.
Competitor Analysis *A competitor analysis report provides a better understanding of the marketplace and competition, from the going rate for tuition fees to the unique selling points*	We consider as competitors to this programme top PhD programmes in the US, including those at Stanford, CMU and MIT. This is due to the 4 year length of the programme and the high research profile of our faculty. In the UK, an offering that might be similar is at UCL or Oxford assuming a similar CDT scheme is setup there. In terms of US programmes, our distinctive features is the "cohort" structure that will allow the students build a strong network, develop early on peer to peer learning and collaboration skills as well as acquire interdisciplinary skills. In terms of UK competition, our research output in the area is superior by far compared to Oxford and comparable to that of UCL.

Competitor Fees	Institution	Programme	Fees	
			Home	International
Provide the fee structure (in British pounds) of three competitors, preferably those mentioned in the competitor analysis. These may be UK or International competitors.	MIT	PhD	£40525	£40525
	Oxford	PhD	£7730	£23950
	Stanford	PhD	£42460	£42460

and marketing strategies of competitor programmes. (appears above the Competitor Fees section)

FEES AND COSTING	
Programme fees *Fees are expressed per academic year in British pounds. For PGT programmes, a Programme Costing Template will also be required for Fee Strategy Group.*	Home-Scotland / EU — £4260
	Home-RUK — £4260
	Overseas — £21000

Fees for each new PGT programme are sent by College to the Fee Strategy Group (FSG) for review and approval. The FSG has developed a Programme Costing Template to give FSG insight into the anticipated profitability of a programme and where it sits within its market. The Fees Costings template, and guidance from FSG on filling out the template is included in the spreadsheet attached to the right.	FSGProgrammeCost ingTemplateFinalH:

Additional Programme Costs (PGR only)

Additional costs to the student should be noted and justified in the table below. These should consist of items that are over and above the basic provision that should be available to all students and should reflect the special additional costs associated with the specific programme of study. Individual items over £200 should be noted on a separate row.

Item	Cost	% of Total
Travel	£7500	100
Computing costs	£12500	100
Total:		100%

ANTICIPATED AND PROJECTED ENROLMENTS			
What are the anticipated and projected enrolments over the next three years?			
	Year 1	Year 2	Year 3
Home	8	8	8
International	2	2	2
Supporting Research What market research has been planned or completed to support the predicted student numbers?	These figures are prescribed by the terms of the UKRI call for CDTs. Given the popularity of the topic we have no doubt we will be able to recruit sufficient student numbers. This programme is contingent on URKI funding and it will end when the funding ends.		

PLANNING AND RESOURCES	
New Courses	2 new courses will be proposed concurrently with this programme. Research Methods in Security, Privacy and Trust (required) and Quantum Security (optional).
Facilities and Equipment	The PhD students will be accommodated in the Bayes Centre. New computing equipment will be purchased on the URKI CDT grant that accompanies this proposal. No additional library resources or specialized equipment will be required.

Staff	Both administrative staff and teaching support staff for this programme will be funded by the accompanying UKRI grant. This CDT involves 53 supervisors (37 from Informatics and 16 from other schools), which means the risk created by staff changes, retirements, sabbaticals is low.
Resource Sharing	This program will share resources with the existing PhD programmes in Informatics. Some resources sharing between CDTs at the college level is also anticipated. Course organizers of relevant courses have not been consulted, but we don't anticipate any problems, as the number of students in this program is small (10 per year).

COLLABORATIVE PROGRAMMES
Additional information is required for new programmes that are collaborations with external institutions or organisations which will result in a joint award and/or where taught components are shared. International partnerships must have a Memorandum of Understanding (MoU) in place before the programme can be approved by College.

Should the proposal be progressed to Stage 2 a draft Memorandum of Agreement (MoA) will need to accompany the submission.

Separate guidance is available for the development of collaborative programmes.

http://www.ed.ac.uk/governance-strategic-planning/collaborative-activity/guidance-templates |
| |

CONSULTATION AND APPROVAL

Programme Title:	PhD in Security, Privacy and Trust
Programme Proposer:	Dr. Tiejun Ma, Prof. Aggelos Kiayias, Dr. Kami Vaniea.

STAGE 1: CONSULTATION

Please confirm consultation with relevant stakeholders has taken place.

Stakeholder	Yes	NA
School Director of Professional Services	☒	☐
School Academic Administration Staff	☒	☐
Information Services (including Academic Support Librarians)	☒	☐
Student Body (SSLC/Student representatives)	☐	☒
Partner School Staff (E.G. Joint Programmes/shared courses etc)	☐	☒
Employers	☒	☐
Industry and Professional Bodies	☐	☒
External Consultation	☐	☒
Please note any other consultation		

Please provide a brief comment on the consultation process

> The CDT proposal was comprehensively vetted at the College and School levels before it was submitted to UKRI.

Please provide a brief comment on the consultation process with External consultants

> The proposal is currently subject to external peer review as part of the UKRI selection process. We will take into account any comments regarding the programme received from reviewers and during the selection interview.

STAGE 2: SCHOOL BOARD OF STUDIES REVIEW AND APPROVAL

Confirmation of approval of the proposal at the School Board of Studies should be entered below.

Date of BoS:	
Convener Name:	
Comment and Approval (BoS Minute): *Please provide either a link to the minutes of the Board or a copy of the relevant text from the minutes.*	

STAGE 3: HEAD OF SCHOOL REVIEW AND APPROVAL

Head of School: *Please print name*
Comment and Approval:
Signature:

STAGE 4: COLLEGE CURRICULUM APPROVAL BOARD REVIEW AND OUTCOME

Date of CCAB:	
Convener Name:	
Stage 1 Outcome (please select as appropriate)	
Permission to proceed to Stage 2	☐

Permission to proceed to Stage 2 with conditions	☐
Proposal rejected with recommendations	☐
Proposal rejected	☐
Comment:	