This report contains feedback from students about a course taught in the School of Informatics during the 2020/21 academic year, in response to the following questions:

- What advice would you give to a student taking this course in future?
- What did you find most valuable about the course?
- What improvements, if any, would you make to the course?
- Please add any other comments you have about workshops, tutorials or labs on this course
- Please add any other comments you have about the presentation of course materials online and their accessibility
- Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?
- Is there anything else you'd like to tell us about your experience of hybrid teaching and learning on this course that would help us improve our approach?

Each course organiser receives this report as well as statistics on multiple-choice responses. All these reports, together with student feedback about individual members of teaching staff, are collected and sent to the Director of Learning and Teaching.

Please note that these are personal responses from individual students: some courses only have a few responses and a small sample can be unrepresentative.

Stereotyping and bias, especially unconscious bias, is a serious concern in any survey gathering personal responses. All students received the rubric below before completing the surveys, and you can read a brief introduction to issues of unconscious bias on the university web pages at http://edin.ac/2iypZBv

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<thead>
<tr>
<th>Rubric given to all students taking the end-of-course feedback survey</th>
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<tr>
<td>We value your opinions on the courses you take here at the University, as they allow us to shape future delivery and development. We welcome constructive comments about your courses, whether positive or negative, and ask you to give details about any issues in order to help the course organiser to understand and address them.</td>
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<td>We encourage you to be aware of the potential for bias in the completion of these questionnaires, so we have developed resources which may be helpful to you:</td>
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<tr>
<td>• Equality, Diversity and Unconscious Bias (<a href="http://edin.ac/2iypZBv">http://edin.ac/2iypZBv</a>)</td>
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<td>You also have a responsibility to provide feedback in a manner which does not breach the University’s Dignity and Respect Policy:</td>
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<tr>
<td>• University of Edinburgh Dignity and Respect Policy (<a href="http://edin.ac/1Cq0VZy">http://edin.ac/1Cq0VZy</a>)</td>
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<td>The results of the questionnaires will never be analysed in a way that seeks to identify individual students from their responses. However, should you wish to remain anonymous, please do not identify yourself in your answers to the survey questionnaire implicitly or explicitly.</td>
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1. Principles and Design of IoT Systems

What did you find most valuable about the course?

- Having an opportunity to build a semi-real-world application but without any course-wise limitation was an invaluable experience. I have learnt a lot from this course and absolutely enjoyed it. Thank you for providing this course.

- I quite enjoyed the survey papers as a complement to the larger technical project. This allowed for an understanding of the real-world applications of IoT systems, which motivated further engagement and desire to acquire skills in the technical component of the course.

- Relates to real-world concepts and technologies. Feels similar to System Design project but is most likely easier to define your own ideas since group sizes are small enough.

- The lecturer and tutors were so conscientious and understanding of problems (including due to covid). They all made a real effort to help the students on the course, make adjustments to the course to improve our learning and made an effort to make conversation with us during tutorials (which makes a real difference in when we can't see people at uni). I learnt so much on this course about IoT on this course but what makes it standout from other courses is just how supportive the teaching staff were and how keen they were to seek feedback to learn and improve the course.

- The two essay assignments at the start forced me to learn to research and learn about new topics. I found this useful, and feel I now have the skill to quickly survey cutting edge technologies.

- This coursework helped me improve my writing skills

- Working with a partner felt really good in a year in which we do not have much contact with others in our class.

- it was a steep learning curve, but skills and knowledge that are definitely applicable in the work field or relevant to boost CV. Being able to see other students' work progress throughout the week was also very motivating.
What improvements, if any, would you make to the course?

- Maybe spacing out more the two first assessments, it felt like we had a lot of work to do very early on.
- More emphasis on embedded work. As it is, this course involves too much machine learning and app development. I feel that this is not really how an IOT course should break down. We should get more exposure to different sensors and techniques for processing sensor data.
- More material needs to be taught. The machine learning side of things, there is no point in paying money for a course where I am not going to be taught anything.
- Only one introductory lecture may make students feel left behind if they are not exposed to the topic enough.
- The workload was very heavy, there was an expectation to make progress on the coursework 3 while doing the essays (this may have been possible on a normal year but all our courses this year have been very coursework heavy). I really enjoyed doing the essays as I think I learnt a lot more than I probably would have for an exam.

  For this year: I felt like I've learnt a lot about the topics I wrote about but very little about the topics that other people did. It would be fantastic if some of the essays about the different topics could be released so that we could study them over the Christmas break?

  For next year: I suspect that the course will switch to doing essays instead of an exam for next year so one thing I would suggest is to do some sort of peer review in tutorials of other people's essays so we have to learn about the other topics too.

- maybe dedicate more time for the students to start implementing what they learnt from the labs. Like the lab for nordic setup wasn't necessary if students end up working with respeck and on the ML side of things more eventually.
2.1) What advice would you give to a student taking this course in future?

- Keep steady weekly progress. Stay in contact with your group partner, and set yourself goals to work towards so that your contributions show through.
- Limit the scope of your project early on.
- Schedule yourself and make sure that you are working a bit every week.
- Start work on all courseworks early, don't be afraid to ask for help from the teaching staff as they really know their stuff.
- This is a very challenging and the required workload is significant, but I strongly recommend to take this course as it would be a fantastic experience when you overcome the difficulties.
- Do a little bit of coursework every week, even if it's only 2 hrs weekly for the first few weeks.
3. Principles and Design of IoT Systems

3.2) Please add any other comments you have about workshops, tutorials or labs on this course

- Course delivery team were dedicated and willing to contribute their feedback.
- I think we could have done with some peer reviewing of there student's essays. A lot of students were quite unprepared for the tutorials and so we didn't really get a very good understanding of the topics that they were writing about. It was excellent to hear some of the ideas of others for the ones that were prepared.
- Nothing was really discussed in the tutorials
- They were really helpful to understand how others were tackling the problem, see what some common problems that could affect yourself as well and get weekly feedback on progress.
4. Principles and Design of IoT Systems

4.1) Please add any other comments you have about the presentation of course materials online and their accessibility.

- NA

- The learn page was quite messy and hard to find some key documents (most were usually emailed out to us).

- They were good!
7. Principles and Design of IoT Systems

7.1) Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?

- All my learning has been fully virtual, from lectures, to labs, to group work. Informatics courses already seemed to be easily accessible remotely in the past, and the adjustments made have facilitated that even more.

- Change from doing an exam for this particular course to doing essays I think was really beneficial (for this course in particular not all courses would benefit from this).

- Having virtual tutorials and classes was in fact very helpful.

- I think it worked well that my team mate and I were not in very different time zones. We were also quite good at communicating with each other and dividing the work among us. The course was also very good in terms of getting the necessary materials for students who were not in Edinburgh.

- Yes

- A lot of time is saved from without needing to leave home to attend tutorials/labs.
7.2) Is there anything else you’d like to tell us about your experience of hybrid teaching and learning on this course that would help us improve our approach?

- I don’t think that the university/school really thought out some of the timelines when it came to coursework, if every course doubles it’s coursework you cannot expect us to work to the same deadlines for coursework, learning, honours projects etc. It can be quite difficult going several days without seeing people as a big part of university is that informal socialising before and after teaching that takes place in person.

- need to catch up more with the students
9. Thank you very much for taking the time to complete this questionnaire. Your response and comments will be fully considered.

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Please provide any additional comments you may have about the course, the teaching on the course or the resources that support it in the box below.

- I absolutely enjoyed this course very much. I hope you could continue to provide such a challenging but very interesting course for students in the upcoming years.

- Thank you so much! I really enjoyed this course, and I think it was very well delivered, especially given the circumstances. I know that sometimes we were not the most engaging class (at least at my tutorial and lab groups), but I think we all find it interesting and, as it touched so many different topics, we did learn a lot.