Executive Summary

Initial Licensure
Mohammed bin Zayed University for Artificial Intelligence

September 22-26, 2019

An External Review Team (hereafter ERT) visited the Mohammed Bin Zayed University for Artificial Intelligence (MBZUAI) from 22 to 26 of September 2019 to evaluate the *Application* for Initial Licensure of the institution (hereafter the *Application*). The exit interview was held on 26 September 2019.

MBZUAI is established pursuant to the provisions of a special governmental law under the name of "Mohamed bin Zayed University of Artificial Intelligence". The University aims to support the advancement of scientific research and development, knowledge creation, and transfer and use of artificial intelligence through the introduction of post graduate programs and specialized collaborative scientific research and development to achieve academic and research excellence at the local, regional, and international level. MBZUAI is initiated to support the "AI Strategy 2031" in developing capabilities and skills of all staff operating in the field of technology and organize training courses in Artificial Intelligence related fields for government officials.

The ERT welcomes this new innovation in Abu Dhabi. The project is supported in its entirety by the government, with full financial support for infrastructure, high-level support for faculty, and full support – in terms of fees and stipend – for students.

Establishing a higher education institution whose mission is to provide educational opportunities in this area, and at a high level, will certainly make a major contribution towards the achievement of the UAE AI Strategy 2031.

The ERT offers its recommendation in full support of this initiative and with the intention of further strengthening and advancing the MBZUAI project.

The main areas the ERT has identified that require action are as follows:

1. **Recruitment of Personnel.** At present MBZUAI has almost no employees. The implementation of a clear time-phased plan is needed to address this. In particular, key personnel, such as the President, Vice President for Academic Affairs and Research, Quality Assurance Director, and Program Directors, need to be in place within a short period of time.

2. **Policies and Procedures.** Developing an entire policy framework for a new institution is a formidable task. It is not surprising that the work so far is incomplete. However, there needs to be a concerted effort to address current issues. These include missing policies, policies which are not sufficiently detailed, and policies which are incorrectly documented, and policies in separate documents that are inconsistent.

3. **The Curricula.** The structures of the current proposals are under-constrained. Fundamentally, MBZUAI needs to offer MSc and PhD programs that are clearly differentiated at Levels 9 and 10, with a clear route from one level to another. The ERT believes that many of the courses form an excellent basis for a re-structuring that meets international standards, the *Standards*, and the National Qualifications Framework (QF*Emirates*). Some of the existing courses, which appear to address prerequisites at Level 7 will need to be removed or revised at an appropriately higher level.

   At both levels, this implies a genuine set of core courses plus electives. The six specialist courses within each subject area provide an opportunity to achieve this with ease. For the PhD applicants need to have demonstrated achievements equivalent to the learning outcomes of the corresponding MSc Program.

   What remains are expectations of applicants for the MSc Programs. Two areas need to be addressed. First, those who come with existing achievements that already meet learning outcomes within the program. A policy and procedure covering Advanced Standing is all that is needed to address this consistently. Second, those who lack certain Level 7 prerequisites. The ERT has identified a small range of general computer science knowledge and skills and small sets of specific skills for each of the three specialist areas. In this way, remaining with the current admissions criterion regarding the expected Level 7 qualification can be retained. While these prerequisites need to become admissions criteria, the ERT has made suggestions as to how MBZUAI can approach these additional criteria. First, by introducing one or more challenge examinations. Second by offering (zero-credit) remedial education through one or more courses (with the challenge examinations as the assessment). MBZUAI can adopt creative mechanisms for their delivery. In particular, students need not be on site in order to take these. Online, partly and remotely supervised, courses could be introduced.

4. **Faculty.** For an institution with a mission for excellence, a strong faculty is fundamental. At present there are no appointments, although a number of people have been identified. These are of high quality. The implementation of a plan to finalized appointments to move towards a situation in which all six programs can be effectively delivered is urgently required. This needs to address numbers, expertise (even within sub-disciplines), ranks, and other experience. This plan needs to be based on a clear workload model. The informal plan to keep teaching loads down to 1 course per semester per faculty member is – in fact – mandated by the *Standards*, in view of all considerations. The workload model needs to include the substantial load of research supervision as well as teaching load.

5. **Admissions.** MBZUAI wishes to ensure that admission is broadly based. The nature of the MSc Programs implies quite significant assumptions regarding prior academic preparation, some of which is general (in computer science) and some of which is more targeted to the specialist areas. While maintaining the existing range of Level 7 qualifications that are acceptable, the ERT is requiring evidence of specific achievements for each of the MSc Programs. For the PhD Program, admission needs to be restricted to applicants with the equivalent of the corresponding Level 9 qualification.

6. **Infrastructure.** Prior to commencement considerable work is needed to create an operational environment. Implemented plans for the library, laboratories, equipment, and software are needed. In addition, personnel need to be appointed.

7. **Research.** This is of fundamental importance to MBZUAI. The current Research Strategy needs a little more work, including responsibilities, indicators, and targets, together with clear policies and procedures covering the various research support initiatives that are envisaged, and clear research expectations.

8. **Community Engagement.** The ERT is very pleased to hear of the various plans envisaged for engagement with the community in various modes. These will be of great benefit for both the institution itself and the institution's external stakeholders. MBZUAI has formalized its commitment by establishing an Outreach and Engagement Division as a major part of the organizational structure. In order to ensure coordination and consistency, a Community Engagement Plan is needed, with clear leadership and responsibilities for all MBZUAI personnel.

The ERT makes its requirements in a spirit of constructive engagement, with the aim of ensuring that the *Standards* are met, and to aid MBZUAI in its desired objective to accredit the programs.

This Executive Summary reflects the status of the Mohammed bin Zayed University for Artificial Intelligence (MBZUAI) at the time of the visit. Since then, the MBZUAI has addressed all the requirements successfully and the Council of Commissioners has recommended to approve the Initial Institutional Licensure.