PART 1 GENERAL INFORMATION

SCHOOL/DEPARTMENT: Computing

DATE OF VISITATION: 15 May 2018

PROGRAMMES EVALUATED:
Master of Science in Computing in Cloud Technologies Level 9 (90 ECTS) and Master of Science in Computing in Cloud Technologies Research Level 9 (90 ECTS) with Minor Awards

MEMBERS OF PANEL OF ASSESSORS:

- Professor Mike Murphy, Academic Registrar, Dublin Institute of Technology (Chair)
- Professor Martin McKinney, former HOD Computing, UU Coleraine
- Dr Barry Feeney, Head of Department of Computing, IT Tallaght
- Dr Christian Horn, Head of Department of Computing and Mathematics, Dundalk IT
- Ronan Comer, Pramerica

Secretary to Panel: Siobhan Cullen, Head of Department of Law and Humanities

INSTITUTE STAFF Paul Hannigan, Billy Bennett, Dr Gertie Taggart, Thomas Dowling, Dr James Connolly, Dr Ruth Lennon, Dr Eoghan Furey, John O’ Raw and Edwina Sweeney,
PART 2 FINDINGS OF ASSESSORS

The Panel of Assessors are satisfied that the proposal adequately addresses the following criteria:

(1) Education and Training Requirements
The programme is consistent with the Institute’s mission, avoids redundant provision and makes efficient use of resources (collaborating where this is beneficial).

(2) Unity
See recommendations below. The proposal demonstrates how the standard (of knowledge, skill and competence), determined by QQI for the named award to which the programme proposes to lead, is achieved.

(3) Teaching and Learning
The proposed approach to teaching and learning is clearly indicated and justified.

(4) Learner Assessment
The learner assessment methods are fully elaborated and consistent with QQI’s policy on fair and consistent assessment. The assessment methods are capable, among other things, of demonstrating attainment of the standards of knowledge, skill or competence, determined by QQI, for the related award.

(5) Resources
The proposed staffing levels are appropriate and the levels of qualifications and competence of the staff is sufficient to deliver the programme. The necessary facilities available in terms of accommodation, equipment, and library and information technology resources are satisfactory to support the proposed programme.

(6) Quality Assurance
The proposal demonstrates how the Institute’s quality assurance procedures have been applied in the development of the proposed programme and satisfactory procedures exist for the on-going monitoring and periodic review of programmes.

(7) Programme Title and Award Title
The award title is consistent with the named awards determined by QQI. The programme title is clear, accurate, succinct and fit for the purpose of informing prospective learners and other stakeholders.

(8) QQI Standards
The learning outcomes of the programme are stated in such a way that the compliance with the appropriate QQI standard is demonstrated.

(9) Access Transfer and Progression
This programme incorporates the procedures for access transfer and progression that have been established by the NQAI and is consistent with QQI policy in accommodating a variety of access and entry requirements.

PART 3 RECOMMENDATIONS

(For the attention of the Academic Council)

Note: It is Institute policy to publish the final reports of the Panel of Assessors
The Panel of Assessors advises the Academic Council that the Institute and the School/Department should take cognisance of following recommendations:

**Commentations**

The Panel of Assessors make a number of specific commendations to LYIT.
1. The Assessors found academic staff to be enthusiastic and engaged, and with a clearly positive team ethos. Their expertise is current and up to date, and supported by a culture and ethos of publishing in journals and conferences.
2. LYIT is commended for its support for CPD and staff development.
3. There is evidence of close cooperation with and engagement with industry, including the identification of issues and initiatives that are relevant to industry.
4. For the programs under review, the Assessors were presented with comprehensive documentation, and an up to date curriculum. All necessary resources to run the programs were available and up to date.

The Panel of Assessors advises the Academic Council that the Institute and the School/Department should take cognisance of following recommendations:

1. It is recommended that the two programmes under review have a designated Programme Chair. 
   **As this is not currently normal practise in LYIT the Executive Board has been asked to approve it. The Course Board feels this would be beneficial for the programme.**
2. Those modules already validated should be noted as such and specify there has been no changes. 
   **The modules have been colour coded in the course schedule to reflect this.**
3. The module reading lists should be refreshed, and this should be a continual process.
   **This has been done.**
4. Specify the total number of hours of effort per module, including the typical duration of each module in weeks.
   **This has been done.**
5. Include a sample delivery schedule for the modules in the documents to guide students.
   **This information will be provided at the beginning of each semester in the Course Requirements Document.**
6. We recommend the addition of a sentence to explain that it may not be possible to run all modules if there is insufficient demand. This should be stated in the programme documentation and also in the marketing material.
   **This will be done.**
7. Provide students, as far as is possible, with clear course content and scheduling information at the earliest opportunity.
   **This information will be provided at the beginning of each semester in the Course Requirements Document.**
8. It should be made clear (see Page 10) that the Minimum Entry Requirements should be “ONE of the following criteria”.
   **This change has been made.**
9. The Panel of Assessors discussed at length the structure of the MSc in Computing in Cloud Technologies programme. Whilst commending the flexibility built in, we strongly recommend that the Programme Team reflect on the structure and consider whether there should be core modules. The Programme Team outlined some compelling structures and synergies in this regard, and the Assessors believe that the Programme would benefit with their inclusion.

*Note: It is Institute policy to publish the final reports of the Panel of Assessors*
Page 41 includes a section on the grouping and flow of modules to assist students and the Programme Chair in this respect.

The Panel of Assessors advises the Academic Council that approval of the programmes subject to general conditions of approval together with the following additional condition:

No conditions were placed on the programme.

PART 4 PROPOSED PROGRAMME SCHEDULE(S)

Title Of Award: Postgraduate Diploma/MSc in Computing in Cloud Technologies
Area Of Specialisation: Cloud Technologies
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
<td>L/T</td>
</tr>
<tr>
<td>1</td>
<td>Virtual Server Administration</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Computer Systems Programming</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Private Cloud Technologies</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Enterprise &amp; Data Centre Networking</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Machine Learning</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 30

Special Regulations:
Students must choose three electives.

Individual electives will only be available where student numbers make the elective viable.

Note: It is Institute policy to publish the final reports of the Panel of Assessors
<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Placement</td>
<td>E</td>
<td>9 10</td>
<td>33HPW 280H</td>
<td>Pass/Fail</td>
</tr>
<tr>
<td>2</td>
<td>Security &amp; Legal Issues</td>
<td>E</td>
<td>9 10</td>
<td>2 2 4 100</td>
<td>- -</td>
</tr>
<tr>
<td>2</td>
<td>Storage Technologies</td>
<td>E</td>
<td>9 10</td>
<td>2 2 4 100</td>
<td>- -</td>
</tr>
<tr>
<td>2</td>
<td>Data Centre Industrial Automation</td>
<td></td>
<td>9 10</td>
<td>2 2 4 50</td>
<td>- 50</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Database Development</td>
<td></td>
<td>9 10</td>
<td>2 2 4 100</td>
<td>- -</td>
</tr>
<tr>
<td>2</td>
<td>Big Data Architecture</td>
<td>E</td>
<td>9 10</td>
<td>2 2 4 100</td>
<td>- -</td>
</tr>
<tr>
<td>2</td>
<td>Developing Cross-Platform Applications in the Cloud</td>
<td>E</td>
<td>9 10</td>
<td>2 2 4 100</td>
<td>- -</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 30

**Special Regulations:**

Students must choose three electives.

Individual electives will only be available where student numbers makes the elective viable.

---

Note: It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: MSc in Computing in Cloud Technologies
Area Of Specialisation: Cloud Technologies
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 3
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Module Title</th>
<th>Module status</th>
<th>ACCS credits</th>
<th>Contact hours (per week)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Dissertation</td>
<td>M 9 30</td>
<td>4 4</td>
<td>100</td>
<td>- 100</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 30

Students must choose six electives from semesters 1 and 2.
The Dissertation topic must be consistent with the overall Programme Learning Outcomes.

Note: It is Institute policy to publish the final reports of the Panel of Assessors.
**Title Of Award:** MSc in Computing in Cloud Technologies Research  
**Area Of Specialisation:** Cloud Technologies  
**Learning Mode Offered:** Full-time, ACCS  
**Stage:** Award  
**Semester:** 1 & 2  
**Date Effective:** September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
<td>L/T</td>
</tr>
<tr>
<td>1</td>
<td>Virtual Server Administration</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Computer Systems Programming</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Private Cloud Technologies</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Enterprise &amp; Data Centre Networking</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Machine Learning</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Security &amp; Legal Issues</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Storage Technologies</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Data Centre Industrial Automation</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Database Development</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Big Data Architecture</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Developing Cross-Platform Applications in the Cloud</td>
<td>E</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total ACCS credits required for stage:** 30

**Special Regulations:**  
Students must choose three electives.  
Individual electives will only be available where student numbers make the elective viable.

**Note:** It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: MSc in Computing in Cloud Technologies Research
Area Of Specialisation: Cloud Technologies
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 2 & 3
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Module Title</th>
<th>Module status</th>
<th>ACCS credits</th>
<th>Contact hours (per week)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 &amp; 3</td>
<td>Research Dissertation</td>
<td>M</td>
<td>9</td>
<td>60 4 4</td>
<td>100 - 100</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 60

Special Regulations:
Students must choose three electives from semesters 1 and 2.
The Dissertation topic must be consistent with the overall Programme Learning Outcomes.

Note: It is Institute policy to publish the final reports of the Panel of Assessors
<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
<td>L/T</td>
</tr>
<tr>
<td>1</td>
<td>Virtual Server Administration</td>
<td>M</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors.
**Title Of Award:** Certificate in Computer Systems Programming  
**Area Of Specialisation:** Computer Systems Programming  
**Learning Mode Offered:** Full-time, ACCS  
**Stage:** Award  
**Semester:** 1  
**Date Effective:** September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer Systems Programming</td>
<td>M</td>
<td>9 10</td>
<td>2 2 4</td>
<td>100 - - 100</td>
</tr>
</tbody>
</table>

**Total ACCS credits required for stage:** 10

**Note:** It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Private Cloud Technologies

Area Of Specialisation: Private Cloud Technologies
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private Cloud Technologies</td>
<td>M</td>
<td>9 10</td>
<td>L/T 2 P 4 Total 50 Project 50 Practical - Final 100 Max</td>
<td></td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Enterprise & Data Centre Networking
Area Of Specialisation: Enterprise & Data Centre Networking
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
<td>L/T</td>
</tr>
<tr>
<td>1</td>
<td>Enterprise &amp; Data Centre Networking</td>
<td>M</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors
**Title Of Award:** Certificate in Security & Legal Issues

**Area Of Specialisation:** Security & Legal Issues

**Learning Mode Offered:** Full-time, ACCS

**Stage:** Award

**Semester:** 1

**Date Effective:** September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Security &amp; Legal Issues</td>
<td>M</td>
<td>9</td>
<td>10 2 2 4 100</td>
<td>CA 100 Project -</td>
</tr>
</tbody>
</table>

**Total ACCS credits required for stage:** 10

**Note:** It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Storage Technologies
Area Of Specialisation: Storage Technologies
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
<td>L/T</td>
</tr>
<tr>
<td>2</td>
<td>Storage Technologies</td>
<td>M</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Data Centre Industrial Automation
Area Of Specialisation: Data Centre Industrial Automation
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>9 10</td>
<td>2 2 4 Total 50 Project 50 Practical - Final -</td>
<td>Max 100</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors
**Title Of Award:** Certificate in Advanced Database Development  
**Area Of Specialisation:** Advanced Database Development  
**Learning Mode Offered:** Full-time, ACCS  
**Stage:** Award  
**Semester:** 1  
**Date Effective:** September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Advanced Database Development</td>
<td>M</td>
<td>9</td>
<td>10 2 2 4</td>
<td>100 - - 100</td>
</tr>
</tbody>
</table>

**Total ACCS credits required for stage:** 10

**Note:** It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Big Data Architecture
Area Of Specialisation: Big Data Architecture
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
</tr>
<tr>
<td>2</td>
<td>Big Data Architecture</td>
<td>M</td>
<td></td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: **10**

Note: It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Developing Cross Platform Applications in the Cloud
Area Of Specialisation: Developing Cross Platform Applications in the Cloud
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Developing Cross-Platform Applications in the Cloud</td>
<td>M 9 10</td>
<td>L/T 2 2 4</td>
<td>100</td>
<td>-</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors
Title Of Award: Certificate in Machine Learning
Area Of Specialisation: Machine Learning
Learning Mode Offered: Full-time, ACCS
Stage: Award
Semester: 1
Date Effective: September, 2018

<table>
<thead>
<tr>
<th>Semester</th>
<th>Title of examination subject</th>
<th>Subject status</th>
<th>ACCS credits</th>
<th>Contact hours (per week over 12 weeks)</th>
<th>Allocation of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Level</td>
<td>Number</td>
<td>L/T</td>
</tr>
<tr>
<td>1</td>
<td>Machine Learning</td>
<td>M</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Total ACCS credits required for stage: 10

Note: It is Institute policy to publish the final reports of the Panel of Assessors
Programme Evaluation Report Approved by:

Professor Mike Murphy
Chairman to Panel
(Registrar, DIT)
Date 2 - July - 18

Billy Bennett
(Registrar, Letterkenny IT)
Date 9 / 7 / 18

Note: It is Institute policy to publish the final reports of the Panel of Assessors