Cloud computing and engineering in the academics with its potentialities in iSchools: an eco friendly development

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Abstract: Cloud computing is a kind of architecture deals with the principles of virtualisation and also promote online computing platform as well as services. Tools of the information technology such as monitor, printers, databases, other applications and packages come under the preview of cloud computing. It is also considered as a cloud platform along with cloud architecture. This helps cost saving due to less software, hardware, and IT packages in the in-house settings. Cloud computing also promotes side by side the online availability. Moreover cloud computing saves initial cost as it is offered by third party and thus seeks no need to connect to the service or cloud provider. In cloud computing, internet plays an important role for converged hardware, software and IT applications. Cloud computing has healthy potentialities in iSchools as such academic units are offered academic programs on information and computing related domains. The paper presented the overview on cloud computing and its features with potentialities of the domain in iSchools and allied branches.

Keywords: cloud computing; green computing; virtualisation; academics; MSc; BSc; emerging degrees; iSchools; information sciences.


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1 Introduction

Cloud computing is associated with the virtualisation which is a significant name in the area of computing and information technology world, moreover it is a kind of mobile affairs promotion in which creation of virtual platform with online support become easy and with this IT products include hardware, software, IT resources, application, systems and packages are accessible. In cloud computing, the computing and informatics basically gear up in virtual platform and also helps online in addition to remote place availability of hardware, software, systems, IT Infrastructure-resources, application packages, etc. Cloud computing also promotes the eco friendly atmosphere and liaised on green computing principles. In almost all type of organisations and institutions (including profit making or not profit making, government or private), cloud computing is strongly applicable. Universities and research centres these days are using various computing furthermore information technological tools, systems and weapon. Cloud computing is actually a computing platform and mechanism and it is not at all a technology. Cloud computing is a breed of architecture which uses in addition to inspire for less (or nil) computers, hardware, IT delivery and side by side limited software and application. In this computing, the concentration is given on virtual, online hardware and software, systems services and one service providers basically equipped with almost all sorts service. Thus organisation may get their needed services only by cable and communication medium; regardless of physical uses of hardware and software, etc. (Foronda, 2011). Information schools (iSchools) are the consortium-based academic unit responsible for education, training and research in information, technology and computing – and related fields. Thus around the world, cloud computing has a healthy potentiality to offer as an education programs in these iSchools apart from using cloud computing as a technological backups.
2 Objective

This is a kind of theoretical research paper with conceptual fundamentals and deals with many aim and objectives including:

- to identify fundamentals on cloud computing which including its features, advantages and opportunities, etc.
- to study about the basic of cloud computing including the features and need, requirement and responsibilities, etc.
- to learn about the contemporary and emerging issues related to cloud computing in educational and academic perspectives
- to find out the basic of iSchools and its features with potentialities of inclusion of cloud computing as an education programs, training programs, etc.
- to learn about the need, possibilities and healthy overview regarding the cloud computing integrated units in the iSchools
- to know about the educational programs and potentialities as programs in the colleges, universities, etc. in the Indian and global contexts.

3 Methodologies

The main aim and agenda of this research paper is to learn about the latest on cloud computing in practice and as educational programs. Thus several theoretical research methodologies have been used which includes the review of literature, web review, etc. Collection of secondary data and also primary data are also important and most valuable for doing this study. Some of the websites have been analysed to for the knowledge of the Cloud computing and its practices. Some of the Cloud computing service provider’s websites have been analysed to prepare the report up-to-date and most valuable to the learners (Gurbaxani and Whang, 1991). Paper is highlighted with academic offering of cloud computing in international context and thus search strategy of MSc-Cloud Computing was used to know more about the cloud programs available and up to 10-page results from the Google has been selected as authentic. As far as India is concerned the official website of AICTE, Ministry of Human Resource Development, UGC and their link (for the granted universities, etc.) have been analysed to prepare the report. The website of iSchools organisation has also accessed to learn about the schools and potentialities of cloud into these schools.

4 Cloud computing: the fundamentals

In contemporary computing and information technology, cloud computing is an important name. Cloud computing is actually a kind of virtualisation and promotes online and remote place availability of hardware, software, IT resources, application packages by the internet (Buyya et al., 2009; Harmon and Auseklis, 2009). This Computing is also
lies on eco friendliness and also based on green computing and technological principles. Cloud computing is deal with following features and include:

- cloud computing platform is a kind of virtual platform and here any service provider can render the software, hardware, systems, database and application service to its client or users (Calheiros et al., 2011; Clemons, 1986; Paul, 2013)
- cloud computing is very much efficient as client just need to associate with cloud service providers and subsequently make able to get its wider benefits
- in cloud computing, flexibility is gaining popularity everywhere such as in MNC’s, IT organisations, governmental houses, academic institutions, service providing agencies, etc. (Davenport and Prusak, 1997; Dikaiakos et al., 2009; Paul, 2013).
- cost effectiveness is an important issue and here organisation does not need to purchase heavy computer or peripheral and thus with small and existing machines or equipments it is able to run virtualisation (Hooper, 2008; Kumar and Lu, 2010; Paul and Dangwal, 2014).

5 From cloud computing to engineering: emergence

Cloud computing is a kind mechanism, tools, platform dedicated to the easy, flexible resource sharing. In cloud computing, resource sharing is most valuable for hardware, software, IT applications, software packages (Foronda, 2011; Harmon and Auseklis, 2009; Paul et al., 2014). It is fact that after internet, cloud computing is most popular and term is using almost all the organisations as well as institutions regardless of its status (such as private or governmental, small or large, profit making or non-profit making).

Between the 1940–1970s, the speed of the computing was less though several applications was released and popularise. Among these few are parallel computing, grid computing. Though from 1990s and 2000s, the traditional computing platform was change as virtualisation technology was emerged and ultimate promotion of the hardware, software, IT applications, etc. with the online services platform (Karthikeyan and Sukanesh, 2012; Kettinger et al., 1995; Melville et al., 2004).

In the first generation of computing, it was very slow with less elasticity and huge sizes. From the big mainframe computers to personal computers, single user to client server architecture all such platforms have been emerged. Client services have made a revolution and in computing world several IT applications have possible to the client by the servers, etc. (Paul and Dangwal, 2014; Schmidt et al., 2009; Wang, 2008).

The distributed computing was another name in the computing solutions. Thereafter the cloud computing concept was emerged for more service benefits, etc. and round the clock basis and anywhere. Price and economic benefits were also a healthy matter to introduce cloud computing and virtualisation in most of the organisations or institutions. Cloud computing is more transparent to user and applications, and also able to build the computing in multiple ways and facilities. The angle and potentialities of computing utilisation is also mobilised with cloud computing services to its client through strong internet connection (Buyya et al., 2009; Subashini and Kavitha, 2011; Watson et al., 2010).
Cloud computing and its potentiality is increasing day by day with public cloud, private cloud, hybrid cloud, etc. The public cloud is offering the services with common platform and basically internet; whereas, private cloud is possible by the integration of in-house infrastructure and its utilisation. The combination of public cloud and private cloud builds hybrid cloud computing. Thus this way the cloud computing become basic internet-based services to a healthy computing engineering domain and hence may also called as cloud engineering (Harmon and Auseklis, 2009; Hooper, 2008).

6 Cloud computing and educational scenario

The foundation of the cloud computing is nothing but the cloud platform and cloud architecture. Cloud computing service providers basically provided several emerging services in the industries, organisation and academia. Moreover, this kind of computing principally depends on environmental systems and monitoring and its solid promotion and practices.

Cloud and similar platform is concerned with the common and emerging job positions which include cloud engineers. Worldwide many universities offered cloud computing programs such as New Castle University (offered MSc-Cloud Computing), Cork Institute of Technology (offered MSc-Cloud Computing), University of Essex, (offered MSc-Cloud Computing), University of Leicester, (offered MSc-Cloud Computing), Anglia Ruskin University, (offered MSc-Cloud Computing), Staffordshire University, (offered MSc-Cloud Computing), Middlesex University, (offered MSc-Cloud Computing), National College of Ireland (offered MSc-Cloud Computing), etc. Some of the Universities also offers BSc program in Cloud Computing or with special focus on the topic. The huge potentiality in cloud architect, cloud designer, cloud strategy and IT manager, big data scientist, data solution expert, big data architect, big data engineer, etc. Cloud sales professionals are also important. Thus, the cloud computing field is emerging with huge job opportunities. Due to the emergence of cloud computing practices in the industry as well as organisations, many universities have been started cloud computing as educational.

Table 1 Popular cloud computing related programs offered by the international companies and vendors

| Popular programs related with cloud computing offered by industrial players |
|-----------------------------|-----------------------------------------------|
| Microsoft                  | Cloud Foundation Programs: Microsoft Azure/MCSE (private cloud) as well as others MCSE indirectly related with cloud computing Higher level cloud |
| Linux (Red hat)            | Cloud foundation programs: RHCA (cloud)/RHCSA (open stack)/RHCE (hybrid cloud)/RHCE (platform-as-a-service) Higher level cloud: RHCE (hybrid cloud storage)/RHCVA/RHCE (deployment and system management) |
| Oracle Corporation         | Cloud foundation programs: Oracle Network Virtualization/Oracle Server Virtualization/Oracle Cloud |
| Cisco Systems              | Cloud foundation programs: CCNA (cloud)/CCNA (data centre) Higher level cloud: CCNP (cloud)/CCNP (data centre)/CCIE (data centre) |
| EC Council                 | Cloud foundation programs: EC Council Cloud Essential |
| Juniper Networks           | JNCDs (data centre)/JNCDP (data centre) |
| ISC2                       | CISSP/CCSP (cloud security) |
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Computing and related fields such as data science, distributed computing, grid computing and virtualisation resulted several vendors, associations and companies around the world to offer programs such as Microsoft offers Solution Engineers Programs with Private Cloud Computing specialisations, Red Hat offers Certified Engineer Program with Cloud Computing Focus. Similarly Oracle Corporation also offers a program on cloud computing and called Oracle Server Virtualization. The most leading cloud computing certifications and training basically provided by the Cisco Systems with several platform and specialisations. The details in this regard depicted in Table 1.

The details of the course structure of such programs have been depicted in the Table 2. In most of the programs some foundational programs on computing and information technology become very much common. And thereafter programs on cloud architecture, cloud management, big data management, IT systems management, etc. Most of these programs may be avail with different platform and mode; among them few important are full time/part time/blended learning/virtual and online, etc. The main differences among these are providing time investment in instruction, training, internship, etc. The details of mode and the universities and nomenclatures have listed in Table 2.

**Table 2** Universities offering cloud computing programs with mode, duration, nomenclature and focus

<table>
<thead>
<tr>
<th>Programs</th>
<th>University</th>
<th>Duration</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc-Cloud Computing</td>
<td>University of Newcastle</td>
<td>1–2 years (FT/PT)</td>
<td>Cloud computing and from the beginning of the program.</td>
</tr>
<tr>
<td>MSc-Cloud Computing</td>
<td>Cork Institute of Technology</td>
<td>18 months or higher for PT</td>
<td>Cloud computing and from the beginning of the program.</td>
</tr>
<tr>
<td>MSc-Cloud Computing</td>
<td>University of Essex</td>
<td>1–2 Years (FT/PT)</td>
<td>Cloud computing and from the beginning of the program.</td>
</tr>
<tr>
<td>MSc-Cloud Computing</td>
<td>University of Leicester</td>
<td>1–2 years (academic and industrial)</td>
<td>Cloud computing and from the beginning of the program.</td>
</tr>
<tr>
<td>MSc-Cloud Computing</td>
<td>National University of Ireland</td>
<td>1–2 years (FT/PT)</td>
<td>Cloud computing and from the beginning of the program.</td>
</tr>
<tr>
<td>MSc-Cloud Computing</td>
<td>Anglia Ruskin University</td>
<td>1–2 years (FT/PT)</td>
<td>Cloud computing and from the beginning of the program.</td>
</tr>
<tr>
<td>MSc-Computing (Cloud Computing)</td>
<td>Dublin City University</td>
<td>1–2 years (FT/PT)</td>
<td>Initial focus in general computing and ICT and thereafter in cloud computing.</td>
</tr>
<tr>
<td>MSc-Cloud and Enterprise Computing</td>
<td>Nottingham Trent University</td>
<td>1–2 years (FT/PT)</td>
<td>Initial focus in general computing and ICT and thereafter in cloud computing.</td>
</tr>
<tr>
<td>MSc-Advance Computer Science (Cloud Computing)</td>
<td>University of Leeds</td>
<td>1–2 years (FT/PT)</td>
<td>Initial focus in general computing and ICT and thereafter in cloud computing.</td>
</tr>
<tr>
<td>MSc-Network Management and Cloud Computing</td>
<td>Middlesex University, Dubai</td>
<td>1+ to 2+ years (FT/PT)</td>
<td>Initial focus in general computing and ICT and thereafter in cloud computing.</td>
</tr>
</tbody>
</table>
Apart from these, cloud computing programs are also available in many universities and research centres around the world with several nomenclatures and degree such as advance diploma, honours diploma, bachelor’s degrees. Among the Bachelor degree, the common nomenclature is BSc. The programs mainly offered in leading universities:

- University of Wales, London
- Staffordshire University, Staffordshire
- CORK Institute of Technology, Ireland
- University of Wolverhampton, UK
- Athlone Institute of Technology, Ireland
- ECPI University, Virginia, etc.

7 Cloud computing and Indian educational context

India is one of the biggest countries among the world in terms of jurisdiction, population and other facets. As far as education is concerned it is the largest as it hold more than 40,000 higher educational institutes (HEIs) and offered in the institutes of several kinds such as general colleges (UG), general colleges (PG), general colleges (UG+PG), engineering colleges, management colleges, polytechnic colleges, architecture colleges and apart 800+ degree awarding universities, Around 100 Institutes of National Importance, having the highest values than central universities, etc. Each year million of students receive their education in these institutes with following degrees/diplomas, etc.

- bachelors degree (first)
- bachelors degree (second)
- masters degree (coursework)
- masters degree (research)
- doctoral degree
- post doctoral degree
- post graduate diploma
- diploma/advance diploma.

Cloud computing is a technology and applied science-based domain. Thus it has potentiality to offer the program in wide range of engineering colleges, polytechnic colleges, computer applications colleges, management colleges, etc. Apart from healthy possibilities in the 33,000+ general colleges and post graduate colleges in the science faculties. Though the apex type of institutes called Institute of National Importance (refer Table 3) also have huge possibilities to offer Cloud Computing programs instantly which includes (https://www.ugc.ac.in; http://www.aicte-india.org; http://www.mhrd.gov.in).

It is a fact that in India some deemed and private universities started the program recently with many levels and some of them are include:
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- VIT University, Tamilnadu-MTech-CSE (Cloud Computing)
- Amity University, Uttarpradesh-MTech-Cloud Computing
- Vel Tech University, Tamilnadu-MTech (IT Infrastructure and Cloud Computing)
- Hindustan University, Tamilnadu-BTech/MTech-CSE (Cloud Computing)
- University of Technology and Management, Meghalaya-BTech-CSE (Cloud Computing) in association with IBM.

Though there are huge possibilities to offer cloud computing programs in several disciplines (which are depicted in next section and in suggestion and recommendation).

<table>
<thead>
<tr>
<th>Universities and others higher educational institutions (HEIs)</th>
<th>The numbers</th>
<th>Remarks with cloud computing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian Institute of Technology (IITs)</td>
<td>23</td>
<td>Possible in CSE/CA/IT Departments</td>
</tr>
<tr>
<td>Indian Institute of Information Technology (IIITs) established as INI</td>
<td>04</td>
<td>Possible in CSE/CA/IT Departments</td>
</tr>
<tr>
<td>Indian Institute of Information Technology (IIITs) established by other means with core from GoI</td>
<td>17</td>
<td>Possible in CSE/CA/IT Departments</td>
</tr>
<tr>
<td>National Institute of Technology (NITs)</td>
<td>31</td>
<td>Possible in CSE/CA/IT Departments</td>
</tr>
<tr>
<td>School of Planning and Architecture (SPAs)</td>
<td>03</td>
<td>Program with cloud architecture is possible</td>
</tr>
<tr>
<td>Indian Institute of Management (IIMs)</td>
<td>19</td>
<td>Program with cloud system management</td>
</tr>
<tr>
<td>Indian Institute of Science Education and Research (IISERs)</td>
<td>07</td>
<td>Program may on research focus</td>
</tr>
<tr>
<td>Academy of Scientific and Innovative Research</td>
<td>01</td>
<td>Program may on research focus</td>
</tr>
<tr>
<td>Indian Institute of Engineering Science and Technology (IIEST), Shibpur</td>
<td>01</td>
<td>Possible in CSE/CA/IT Departments</td>
</tr>
</tbody>
</table>

8 iSchools: green overview

iSchools is a kind of academic innovations in recent past among the universities around the world and it is also referred as information schools and a kind of consortium combined with some departments connected with information and computer related subjects, etc. iSchools basically deals with many subjects and departments and interested to bring under one umbrella. This approaches ultimately helpful for interdisciplinary research promotion and mutual information management for several organisations (Paul et al., 2014; http://www.ischools.org).

iSchool started its establishment revolution from United States and soon such strategies undertaken by many iSchools. iSchools are basically established in the Faculties where Computers and Information may be handled as academic programs or
research programs such as in the Faculty of Science, Faculty of Engineering and Technology (FET), Faculty of Information Sciences and Technology (FIST) around the world. However most of the nomenclature of the isSchools is with computing and technology term. While some uncommon nomenclature are as follows:

- in Michigan State University, isSchools called as Department of Telecommunication, Information Studies and Media
- in Telecom Bretagne, isSchools called as Department of Logic Uses, Social Science and Information
- in University of Glasgow, isSchools called as Humanities Advanced Technology and Information Institute
- in University of Missouri, isSchools called as Schools of Information Science and Learning Technologies.
- in University of Siegen, isSchools called as School of Media and Information Science (http://www.ischools.org).  

As far as practice of cloud computing and virtualisation in the isSchools are concerned, it is important to note that all these isSchools have deal with the computing and information science programs. And thus such schools are deal with many computing devices, systems, products of electronic world with several disadvantages and unhealthy facets; though with the best practice of cloud in such academic units it is positively possible to offer cost effective environmental facets and features as less computing devices released less harmful chemical.

9 **Cloud computing and isSchools**

Cloud Computing is the approach along with the model in which virtualisation is positively possible with huge tools including the hardware, software, application, systems, and utilisation. This is a centralise information technology service powered by internet technology. Thus the isSchools has healthy and strong potentiality to offer cloud computing related programs in science, technology, management and social science point of view. Worldwide isSchools are increasing and apart from USA today in Europe, Asia, Australia, Africa isSchools are rapidly increasing (http://www.ischools.org). The comprising institutes are mostly from the information technology, computer science, communication science, library science, management science (mainly MIS), communication technology, cognitive science (mainly human computer interaction), etc. Thus they offer computing, informatics and information sciences, and in all these programs cloud computing may include as a module, paper, concentration, etc. The flagship program of most isSchools is MS-Information Science/Information Science and Technology.

And in that program, cloud computing may be offered as specialisation. In India AICTE is the controlling body to offer programs in technical education and in many universities and engineering colleges information and computing related fields are active. Thus such related fields may jointly establish an isSchools as full-fledged manner or with of partial nature with cooperation of closely related subjects and supporting activities
like establishment of a centre in the area of interest. And in such full-fledged and partial *iSchools* cloud computing programs may be offered along with other information-technology-social interactive services. Moreover the number of institutes in this category (under AICTE) is most vast and as a whole it crosses more than 10000+ and the details are depicted in Table 4.

**Table 4**  
Number of institutes under the AICTE that have possibilities in cloud computing programs

<table>
<thead>
<tr>
<th>Streams</th>
<th>Number of institutes</th>
<th>Total intakes (as on 2015)</th>
<th>Remarks on cloud computing potentiality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>177</td>
<td>(Annual intake of 11,070)</td>
<td>Special program on cloud architecture and cloud data centre designing may be offered</td>
</tr>
<tr>
<td>Engineering</td>
<td>6,375</td>
<td>(Annual intake of 1,903,722)</td>
<td>As depicted with bold points, below.</td>
</tr>
<tr>
<td>Management</td>
<td>3,217 (MBA) + 600 (PGDM)</td>
<td>(Annual intake of 366,439)</td>
<td>Techno-managerial programs may be offered</td>
</tr>
<tr>
<td>Computer applications</td>
<td>1,469</td>
<td>(Annual intake of 110,585)</td>
<td>Specialisation may be offered in MCA/BCA</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>4,276</td>
<td>(Annual intake of 1,308,008)</td>
<td>Special thrust may be given in higher semester for Cloud Computing papers, etc.</td>
</tr>
</tbody>
</table>

*Source:* [https://www.ugc.ac.in](https://www.ugc.ac.in) and [http://www.ischools.org](http://www.ischools.org)

Among the possible and special programs few important may be:

- BCA/MCA (Cloud Computing)
- BSc/MSc-CSE (Cloud Computing)
- BTech/MTech-Cloud Computing
- BTech/MTech-CSE (Cloud Computing)
- BTech/MTech-IT (Cloud computing)
- MPhil/PhD-Cloud Computing.

This way cloud computing not only helpful in building green and eco friendly academic unit practice but also able in offering cloud computing related programs in the *iSchools* and related unit/s around the world where such schools have established or future *iSchools* (created with the integration of related departments, etc.). The cloud computing in the *iSchools* strongly promotes the eco and green systems thus every related schools and departments need to oversee the matters very carefully.

### 10 Findings

- Cloud computing program is most emerging and comes with many flavours and dimensions. Initially it was only with the public cloud, private cloud and hybrid cloud but today it has been added many other models, architecture, etc.
Cloud computing has become an interdisciplinary domain and today consists with the management, engineering and architecture principles and makes a full-fledged domain either as engineering or applied science rather only a concept, models.

The green principles and techniques have been added in the cloud computing and systems; thus it has now a green domain and tool for healthy environmental friendliness.

Cloud computing is now becoming a hot educational program in the western universities and mainly in the European countries. In India, the programs just started in the private and deemed universities. Though in large number of government colleges and universities cloud computing is still absent.

11 Suggestion and recommendation

Cloud computing in terms of practice and academics has healthy and huge potentialities and which include but not limited to the following:

- Cloud computing has wider potentialities in the industries, academics and organisations for elasticity, cost effectiveness and environment friendliness. Thus proper initiatives are very much important and valuable from the NGOs, association, research foundations, etc.

- India has large number of universities and colleges and many of them deal with the related branches such as computing, information technology, computer science, software engineering, computer applications, etc. and thus in such departments cloud computing may be started as a full-fledged degree such as BSc/MSc/BTech/MTech-Cloud Computing or Virtualisation, etc.

- Such related departments may also offer a focus or specialisation in the concerned degree like BSc/MSc-IT (Cloud Computing), BSc/MSc-CS (Cloud Deemed Universities latest efforts is private computing), BCA/MCA (Cloud Computing), etc.

- "iSchools" may be established by merging related departments of computing and information technology in India too as like international scenario. And there cloud computing and related programs may be offered.

- India is moving towards a developed nation and lies on latest digital economy affairs and thus apart from the initiative of the government universities and deemed universities latest efforts is private universities.

- The study shows that (as of October 2017) among the private universities of 279 few have started cloud computing and allied programs viz. IT infrastructure management, network administration, etc. Even few universities have started specialisation in the related fields within the available degrees and programs such as BSc-IT and MSc-IT (more is depicted in Table 5 herewith). The study is dedicated on the track ‘science’ only.
Table 5  Private universities and allied program on cloud and related areas within science track

<table>
<thead>
<tr>
<th>Sl. no.</th>
<th>Universities</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Himalayan University</td>
<td>BSc-Networking/Telecommunication/ MSc-Telecommunication (relevant)/ MSc-Networking</td>
</tr>
<tr>
<td>2</td>
<td>Ganpat University</td>
<td>BSc-MSc (Tech)-IT IMS (relevant paper)/ MSc (Tech)-IT Infrastructure Management Services</td>
</tr>
<tr>
<td>3</td>
<td>Navrachana University</td>
<td>MSc-IT (Network Administration)-Any Degree</td>
</tr>
<tr>
<td>4</td>
<td>R.K. University</td>
<td>MSc-IT (Cloud Technology)/ MSc-IT (Infrastructure Managed Service)</td>
</tr>
<tr>
<td>5</td>
<td>Team Lease Skills University</td>
<td>BSc-IT Infrastructure Management Service</td>
</tr>
<tr>
<td>6</td>
<td>Amity University, HR</td>
<td>MSc-Network Technology and Management): related degree</td>
</tr>
<tr>
<td>7</td>
<td>Reva University, Karnataka</td>
<td>BS-CS (Cloud Computing and Big Data)</td>
</tr>
<tr>
<td>8</td>
<td>Centurion University of Technology and Management</td>
<td>BSc-IT (Cloud Technology and Information Security)</td>
</tr>
<tr>
<td>9</td>
<td>Amity University</td>
<td>MSc-Network Technology and Management</td>
</tr>
</tbody>
</table>

12 Conclusions

Cloud computing is dedicated to the friendly atmosphere creation or more clearly complete and healthy sustainability and it is also indirectly depends on several green principles. In almost all the organisations cloud computing services may be incorporated due its healthy support. Today most of the universities and educational institutes are digitally equipped which include the computing and information technological, computing tools, etc. Cloud computing and its increasing uses in different sectors and organisations lead the development of new and innovative academic programs, centres and departments in many countries around the world.

Cloud computing is a concept, tools, mechanism and most importantly a domain these days. Organisations, associations and institutions are moving towards better cloud computing practices. Cloud computing and its types, function and features are rapidly growing and adopting in large scale irrespective of status of the funding agency of the organisation, profit making, non-profit making, etc. Cloud computing and related branches need to offer in other related programs and fields which include the management, designing, architecture and other related areas for solid cloud computing promotion and side by side green adaptation and bringing green into cloud and subsequently society. The iSchools need to integrate cloud into their infrastructure and IT solutions and due to their potentiality they have to offer Cloud and allied programs. Thus this way healthy and wealthy Green society may possible to render.
References


