The Project for Skills Development of ICT Engineers Targeting Japanese Market
Bangladesh Computer Council
Level-7, ICT Tower, Agargaon, Dhaka-1207

Report on Workshop on
Skills Development of ICT Engineers Exam (ITEE) Targeting Japanese Market

Venue & Date: UGC Auditorium, UGC, Agargaon, Dhaka & 13 November 2019 at 10 A.M.

Objective: - To share the prevailing gap in ICT curriculum utilize in the university level
- To share the opportunities in Japanese ICT Markets/Industry

Background: BCC with support of JICA is implementing ITEE project mainly focusing on two major components one is holding ITEE exam and Bangladesh-Japan ICT Engineers Training (B-JET) Program. The outcome is quite different in these two components. The passing rate is lower in ITEE, on the other hand the B-JET passers are getting job in Japan and Bangladesh's success in getting jobs is hundred percent. So, the project was encouraged to find the reasons behind.

The ITEE participants mainly sit for the exam to test their knowledge they have acquired from the university. And it is seen that the participants are doing very well in technology area whereas showing poor result in the IT management and IT strategy area. So, the passing rate is not achieved at satisfactory level until now.

As B-JET is mostly conducted in Japanese language, the IT Management & Strategy, Service and Japanese Business manner are also taught to the B-JET trainees. As a result, the B-JET participants are easily getting work opportunities in the ICT industry in Japan more than 75% and the rest in Bangladesh. Thus, it is ensuring almost hundred percent success rate in job placement.

Therefore, besides behavioural issues, IT Management & Strategy are the key success factors as well as challenges in the B-JET Program and in ITEE.

Considering the above situation, the project addressed the issue rightly seeking support from the University Grants Commission (UGC). UGC also took this issue seriously and arranged a series of meetings to find the solution.

As a part of these activities UGC and BCC jointly organized this workshop to share the message with university authority and concerned faculty member and receive their feedback for the next course of actions.

In light of this situation, the honourable guests and participants have discussed this issue. We were enlightened by the valuable direction of Honourable Chief Guest Mr. Zunaid Ahmed Palak MP, State Minister of ICT Division, Chairman, UGC along with other senior high officials from ICT Division, BCC, UGC and Industry. Two keynote presentations on ITEE Curriculum to Produce Qualified Graduates for the Rebelling Industries of 21st Century (including Japan Markets) and on Jobs & Career after Learning Japanese Language and Information Technology Engineers Examination made the audience understand the workshop agenda clearly.

So, this report deals with the major points of discussion from distinguished speakers and subsequently narrates the findings and recommendations from the workshop. These are described below:

Professor Dr. Md. Sazzad Hossain, Member, UGC delivered the welcome speech with a background of the workshop. He mentioned that university education system shall influence the achievement of country goal or mission. Bangladesh has a lot to do for materializing the vision 2021, 2030, 2041 and delta plan. First target is to become digital Bangladesh by 2021. The Government has taken a number of initiatives from every sector to achieve this goal timely. At present Bangladesh's major strength is demographic dividend. We just need to prepare them in proper direction. On the other hand, Japan is one of the most advanced and largest ICT industry-oriented country. They need a great deal of human resources to keep their growth stable. Number of aging population is also a concerning issue for Japan. So, they are offering the better career development in the ICT sector for the young talented people from different nations. As we have been maintaining the beautiful relationship with Japan since long, we expect huge skilled ICT human resources transfer from Bangladesh. Considering this ground, we need to check the competitiveness of our ICT curriculum at university level

comparing to that of global standard with special attention to that of Japan standard. In light of this overview, Prof. Sazzad invited all the honourable guests and participants to discuss and share the opinion in this workshop to find a future direction.

At this stage, a video documentary on Information Technology Engineers Examination (ITEE) was presented before the audience to make them understand the ITEE status comparing to the demand of global ICT industry and unlimited opportunities of this sector.

Following that the respected senior officials from Ministry of ICT Division, Bangladesh Computer Council (BCC), Embassy of Japan in Bangladesh, JICA Bangladesh Office and Japan External Trade Organization (JETRO) with the Honourable Chief Guest Mr. Zunaid Ahmed Palak MP, Honourable State Minister, Ministry of ICT Division made their valuable speech at the opening session chairing by Professor Dr. Kazi Shahidulla, Chairman, University Grants Commission (UGC) of Bangladesh have delivered their speeches. The core message from their speech could be narrated like below:

Mr. Taro Katsurai, Senior Representative, JICA Bangladesh Office reminded that the start-ups company of ICT sector are rapidly growing and leading the industry. So, the demand of ICT professionals is increasing exponentially all over the world. Higher number of ITEE passers with Japanese language skill can easily take the employment opportunity in Japan's ICT industry. JICA is also interested to promote ICT industry facilitating quality human resources development.

Mr. Kazunori Yamada, Representative, Japan External Trade Organization (JETRO) emphasized on development of skill for human resources as the bi-lateral trade relation between Japan and Bangladesh has been increasing so fast. Many Japanese companies have also expressed their keen interest to open their businesses in Bangladesh. So, skilled HR on ICT is very essential to grab this opportunity.

Mr. Parthapratim Deb, Executive Director, Bangladesh Computer Council (BCC) expressed his deep concern to ensure availability of skilled HR to transform our nation into knowledge-based country. He requested to pay attention to integrate the course curriculum as per industrial demand to meet the upcoming challenges.

Mr. Hiroyuki Yamaya, Minister, Embassy of Japan in Bangladesh appreciated the initiatives taken by UGC & BCC to develop human resources and utilize the advantages of demographic dividend. He believes Bangladesh has ample potentials to embrace the opportunities of AI, IOT and Big Data. Japan is the largest development partner of Bangladesh. So, Japan would like to work together with excellent ICT engineers of Bangladesh. Undoubtedly, such input will play a significant role in accelerating the proud friendship between Bangladesh and Japan.

Mr. N M Zeaul Alam, Senior Secretary, Ministry of ICT Division requested the concerned persons to minimize the gap between current curriculum and industrial demand. We are improving use of devices in governance day by day to enjoy door step services of frontier technology. Time has come to understand each other and collaborative effort among industry – academia – public. Understanding the demand context from industry all the universities should come forward to keep their curriculum updated as per international standard. He requested to exchange their valuable opinions on the key-note presentation for finding the future direction and utilizing demographic dividend effectively.

Professor Dr. Kazi Shahidullah, Chairman, University Grants Commission and Chair of the Workshop delivered the closing speech of the opening session. He requested academicians of universities to keep pace with the IT curriculum on the basis of required skill demand and global changes. Bangladesh is also growing at satisfactory growth rate and dreaming for a developed country. So, it is a must to keep our education in proper track. He cordially reminded that our universities have been producing many IT graduates but when they are sitting for ITEE exam, the passing rate is only 10-15% which is really not satisfactory. It is also found that our IT curriculum is not well updated comparing to the demand of IT industry. He also requested to give attention to the Japan's IT industry to avail the employment opportunities by producing skilled IT engineers. Finally, he expected some positive outcomes through a good interactive session from the workshop.

Mr. Engr. Md. Golam Sarwar, Project Director, The Project for Skills Development of ICT Engineers Targeting Japanese Market delivered thanksgiving remarks to all the participants. He requested to share their valuable comments or guideline in a view to minimizing the prevailing gaps in the IT curriculum.

At the beginning of second session, Mr. Zunaid Ahmed Palak MP, Honorable State Minister, Ministry of ICT Division felt fortunate to have the opportunity to deliver his speech in front of university dignitaries. He expressed

that the workshop deals with the most required issues like skilled human resources development and finding ways and directions for solution.

He shared a synopsis of current activities from his ministry that how fast they are moving to make Digital Bangladesh a reality by 2021. He informed that 600 services have already come under e-government services and 2000 more will follow by 2021. Connectivity system with village level is being progressed so fast aiming to decentralization, establishment of 28 hi-tech parks in different locations to generate employment and business locally and build knowledge-based country by 2041. The world is going to enter into the era of 4th industrial revolution (4IR) and use of frontier technology. But all these depend on the availability of skilled human resources. So, we need to review our existing policy at all levels as per demand.

Despite we have been maintaining GDP rate 7% plus for last 10 years, we have to achieve double digit GDP rate to become a developing country. We need to ensure huge number of employments. At present we are depending on labour intensified industry for our growth but it might not be sustainable in coming future as frontier technology like AI, IOT, Blockchain, Big Data, Microchips will take the lead reducing the labour demand and increasing the technology based human resources demand. So, we don't have any other alternatives except ensuring skilled human resources development.

Our ministry is supporting to establish ICT incubator lab in the universities to encourage research, innovation, plug and play and start-ups. We are operating learning and earning projects to facilitate the earnings locally. Continuous research and innovation can play significant role and help face the coming challenges. So, we are working to increase these initiatives through various efforts.

Japan is the most trusted and largest development partner of Bangladesh. They are world recognized for their punctuality, innovation and technology. But the average age of current population is nearly 50, on the other hand ours is around 26 and most of the people are young. We need huge employment and Japan need skilled HR. So, it's a time to make a win-win partnership. Considering the situation, we are thinking to establish a Bangladesh – Japan ICT institute with the support from JICA from where the ICT professionals or students can learn Japanese Language and latest frontier technology like AI, IOT, Big Data, Internet Security etc. and grab job opportunity in Japan and Bangladesh. It will put significant contribution to ICT industry too.

He believes all these are possible by studying and following standard curriculum at university level. University may take timely initiatives to update and accommodate the latest industrial demand to their curriculum. But it is also a fact that updating is not possible every year. In that case, training and incubation centres can play a significant role to minimize the gap.

The honourable State Minister hoped that all the participants will enjoy the discussion and surely find out a solution for future course of action. He concluded his speech quoting "If you want to go fast, go alone. If you want to go far, go together" and wishing tomorrow is for digital Bangladesh.

Prof. Dr. Mohammad Mahfuzul Islam, P.Eng, Vice-Chancellor, Canadian University of Bangladesh shared and explained a keynote presentation on "ITEE Curriculum to Produce Qualified Graduates for the Rebelling Industries of 21st Century (Including Japan Market). It is very clearly understood about the upcoming changes and challenges in 21st century and the potentiality of Japan market.

The keynote speaker has shown an overview of possible disruptive technologies in the 4IR. He predicted 5G will make the internet 70 times faster. Use of 6th sense technology in digitization, emerging 3D printing, communicating devices using IOT, AI apps in industries, incredible use of robotics, cloud computing, big data analytics, bio and nanotechnology, blockchain, virtual and augmented reality, power storage (battery engineering) will be the most important factors of disruptions in 4IR technology. Every industry and sector will be disrupted by 4IR technology. Skipping the revolution may cause serious unemployment. Only Invention and Innovation can co-opt this situation. Skill development is the only way to be competitive with the coming disruptions.

All the above changes will influence the academic curriculum, teaching and learning elements and methods as well. The education process of modern era can meet the skill requirements. So, it needs to improve the skills on critical thinking, communication, collaboration and teamwork, critical problem solving, creativity, emotional intelligence, global awareness, financial sector, economics, business and entrepreneurial literacy, civic literacy, health literacy, environmental literacy, computational thinking, judgement and decision making, service orientation, negotiating, cognitive flexibility and so on. There needs promoting innovation in three stage systemizations- 1) Information System to understand the requirement from definition to comprehensive, 2) Operation System to know about the application, and 3) Business Model to act with a strategic planning. So, it would not be easy to address those issues without having sound knowledge about CSE.

But the reality is IT graduates form our country also do not have enough knowledge on business strategy and management. Whereas, these days the CSE graduates are making successful business models.

Considering the above factors, a huge gap is noticed between our IT curriculum followed by the maximum university and the ITEE syllabus. ITEE minimizes the gap between the knowledge about CSE and business management. ITEE deals with the both the capacity of IT and business discipline. And currently ITEE added the security area also.

He also introduced the level and standard of ITEE and which level indicates which capacity. He also shared ideas about how ITEE will be updated with the present demand and upcoming changes. He mentioned that ITEE also opened the better employment opportunities globally and specifically in the Japan market. So, maximum utilization of ITEE will increase the business with better performance. He has also shown the model of utilizing ITEE in Japan by the university and business companies.

At the end of his presentation, he requests all the academicians from different universities to review and check the gap in the current curriculum and take initiatives to update their curriculum based on the ITEE syllabus. He concluded requesting to keep IT management & IT Strategy proportionately in the curriculum, concentrate on natural resources, skilled human resources, innovation and technology and their commercialization.

Professor Dr. Md. Sazzad Hossain, Member, University Grants Commission has delivered a clear statement on the job opportunities for IT/ITES graduates and status in Japan from his presentation titling Jobs and Career after Learning Japanese Language and Information Technology Engineers Examination.

He indicated that though the passing rate in ITEE is too low which is 2-15%. on the other hand the job placement rate is more than 75% for graduates with Bangladesh-Japan ICT Engineers Training (B-JET) program. The program teaches Japanese Language, Japanese Business Manner and small part of IT Business and Strategy. Moreover, the ITEE passers also perform better in various business houses. Seeing the overall outcomes and expected benefits he shared the opportunities and the reason behind Japan's revolution in IT industry.

Japan is one of the leading industrial and technologically advanced country. It is the top patent filing country having so many popular brands around the world. They follow one of the best education systems. Japan's number of noble prize winner is highest in Asia. Japan is paying attention in research and innovation and trying to lead the 4IR. Many university faculty members of our country also completed their doctoral degree from Japan.

On the other hand, Bangladesh is also growing fast to become a digital country and take a leading place in IT industry. We see every year a huge number of graduates in IT discipline. So, ensuring employment with better salary is much required to uphold this interest. It is high time we created another source to boost up economic growth and IT industry is the only suitable option to achieve this.

Therefore, this is the right time to work together in collaboration with public, private and academia. We need to understand each other. If we focus on to Japan market with collaborative effort, it will not be so difficult to dispatch at least 10000 ICT graduates to Japan. To achieve this, we have to pay attention to learning Japanese language and having good number of ITEE passers. University can check the ITEE syllabus to update their curriculum covering IT Strategy and IT Management issues.

The second part of the technical session was conducted with a panel discussion. The discussants are the leading personnel or IT entrepreneurs about Japan market and global ICT industry. Some of the valuable comments/messages from them are as folows:

Mr. Ahmedul Islam Babu, MD & CEO, TecKnowGram, a Japan Focus Investor, commented that strategy and management issue should not be ignored for doing business or jobs in ICT sector. And Japan has the plenty of opportunities to develop career in ICT sector with greater satisfaction.

Mr. Rashad Kabir, Convener of Japan market focus group, BASIS said that it would be very beneficial and bi-lateral business also, if we could dispatch enough number of ICT professionals to Japan given with proper skill and training.

Engr. Abubokor Hanip, CEO, PeopleNTech emphasized on infusing academic skill with industrial skill to confirm adequate skill development. Some HR will also work in Bangladesh, if we prepare skilled HR targeting Japan market and it will accelerate domestic ICT industry also.

Mr. Jahangir Alam, Joint Secretary, Ministry of Expatriates' Welfare and Overseas Employment informed that currently they are dispatching technical intern trained up in Japanese Language and Manner in 14 categories. If universities can accommodate this course, it will be more beneficial for both countries.

Professor Md. Roshidul Hasan, BSMRAU said e-village emphasize teachers training on new technology because maximum devices will be connected with each other using IOT and AI. So, training on skill development is very essential.

Professor Dr. Mohammad Shorif Uddin, Jahangirnagar University noticed that our curriculum is very close to ITEE syllabus. We just need to accommodate strategy and management chapters in the current curriculum.

Based on the presentation and panel discussions all the participants were invited to ask questions or share opinion, advices, suggestion and to discuss openly.

Professor Dr. Dalem Ch. Barman, Vice-Chancellor, Asa University Bangladesh was enlightened watching the presentation. He informed that Japan monitors the universities in consolidate system whereas Bangladesh monitors voluntarily.

Prof. Dr. Chowdhury Mofizur Rahman, Vice-Chancellor, United International University shared opinion to take initiative to design a course in combination with CSE and Business.

Dr. Jahangir Alam, Professor, Prime University requested to take initiatives to arrange broad level internship program.

Md. Karam Newaz, Chairman, Gono-bishwabidalay agreed upon about the importance of learning AI, Management, Mobile Technology etc. and he has already accommodated in their university curriculum.

Professor Dr. Md. Anowarul Islam, Treasurer, SUST agreed about the importance of updating.

Dr. Mohammad Motiur Rahman, Professor, Department of CSE, Mawlana Bhashani Science and Technology University requested to check the virtual class system to teach Japanese Language.

At the end of the workshop, Mr. Akihiro Shoji, JICA Expert assures that all the opinion shall be shared with JICA and Embassy of Japan aiming to work together and bade thanks to all the participants.

Taking all the speech from honourable guests, presentation, discussion, opinion and suggestion into consideration the following valuable findings, recommendations came from the workshop for next course of actions:

Findings:

1. The management and strategy areas are not sufficiently covered in the current curriculum of IT related under graduation courses in most of the universities.
2. Absent of Academia – Public – Industry level collaborated effort to understand the current demand.
3. Need to focus on the necessity of skill based academic system for skilled human resources development.
4. The research and innovation facilities are not enough in the university level.
5. Well informed about the opportunity in Japan ICT Industry for Job placement and business as well.
6. Understand the importance of Japanese Language Program and ITEE for skill ICT HR development for huge job opportunity in Japan.
7. Well informed about the upcoming changes and challenges of 4IR.
8. Preparation to face the challenges of 4IR.
9. Understand the importance of learning AI, IOT, Blockchain, Big Data, Robotics etc.
10. Understand the necessity of generating skill & technology base human resources development to be fit for coming job positions.

Recommendations:

1. Universities are requested to adopt absent part of current requirements of ICT industries from ITEE syllabus.
2. Consider to Establish Bangladesh-Japan ICT Training Institute.
3. Emphasize on research and innovation in the academic system more widely.

4. Prioritize the training for teachers about latest technological changes.
5. Integrate the frontier technology introducing top-up training at the university level.
6. Ensure supply of skilled human resources locally and internationally.
7. Focus on Japan ICT industry and motivate to learn Japanese Language to enter the Japan IT Industry with better job placement and career development in Japan.

Conclusion: Based on the findings and recommendations from the workshop, all the participants agreed to continue discussions and take required actions for future endeavours.

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স্মারক নম্বর: ৩৭.০১.০০০০.১১৪.৯৯.০০১.১৯.১৩

তারিখ: ২৪ জ্যৈষ্ঠ ১৪২৮

০৭ জুন ২০২১

বিষয়: বিশ্ববিদ্যালয়সমূহের কম্পিউটার সায়েন্স/ তথ্য প্রযুক্তি বিষয়ক কোর্সে ITEE পরীক্ষার সিলেবাস অন্তর্ভুক্তকরণ প্রসঙ্গে।

সূত্র: ১। বাংলাদেশ কম্পিউটার কাউন্সিলের পত্র নং-৫৬.০১.০০০০.০০০.৯৯.০০১.২১.১/১; তারিখঃ ২২ ০৪-২০২১

দেশের সকল সরকারি ও বেসরকারী বিশ্ববিদ্যালয়ের কম্পিউটার সায়েন্স/তথ্য প্রযুক্তি বিষয়ক সিলেবাস আন্তর্জাতিক মানসম্পন্ন করণে তথা Information Technology Engineers Examination (ITEE) পরীক্ষার সিলেবাস এর উপযুক্ত অংশ বিশ্ববিদ্যালয়সমূহের কোর্সে অন্তর্ভুক্তিকরণে একটি সুস্পষ্ট রুপরেখা বা গাইডলাইন প্রণয়নের লক্ষ্যে কর্তৃপক্ষের অনুমোদনক্রমে নিম্নলিখিতভাবে একটি কমিটি গঠন করা হ'ল।
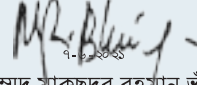
(জ্যেষ্ঠতার ভিত্তিতে নয়)

১।	প্রফেসর ড. মোঃ সাজ্জাদ হোসেন, সদস্য, ইউজিসি	-আহবায়ক
২।	প্রফেসর ড. মোহাম্মদ মাহফুজুল ইসলাম, ভাইস চ্যান্সেলর, কানাডিয়ান ইউনিভার্সিটি অব বাংলাদেশ	-সদস্য
৩।	ড: মো: একরামুল হামিদ, অধ্যাপক, সিএসই বিভাগ ও ডিন, প্রকৌশল অনুষদ, রাজশাহী বিশ্ববিদ্যালয়	-সদস্য
৪।	ড: মো: মামুনুর রশীদ, অধ্যাপক, সিএসই বিভাগ, ঢাকা বিশ্ববিদ্যালয়	-সদস্য
৫।	ড. মুহাম্মদ নুরুল হুদা, অধ্যাপক, সিএসই বিভাগ, ইউনাইটেড ইন্ট্যারন্যাশনাল ইউনিভার্সিটি	-সদস্য
৬।	ড. শামিম কায়সার, অধ্যাপক, সিএসই বিভাগ, জাহাঙ্গীরনগর বিশ্ববিদ্যালয়	-সদস্য
৭।	জনাব ফারহানা সরকার, সহযোগী অধ্যাপক, সিএসই বিভাগ লিবারেল আর্টস ইউনিভার্সিটি অব বাংলাদেশ	-সদস্য
৮।	জনাব মোহাম্মদ মাকছুদুর রহমান ভূঁইয়া, পরিচালক (অতিরিক্ত দায়িত্ব) আইএমসিটি বিভাগ, ইউজিসি	-সদস্য
৯।	জনাব নুসরাত শারিতা, সিনিয়র সহকারী পরিচালক, আইএমসিটি বিভাগ, ইউজিসি	-সদস্য সচিব

কমিটির কর্মপরিধি ঃ

১। বিভিন্ন বিশ্ববিদ্যালয়ে প্রচলিত সিলেবাস পর্যালোচনা;

২। আন্তর্জাতিক পর্যায়ে প্রচলিত ও ITEE সিলেবাস পর্যালোচনা;

৩। পেশাদার ও মানসম্পন্ন সিলেবাসের সহিত আমাদের প্রচলিত বিশ্ববিদ্যালয়সমূহের প্রচলিত সিলেবাস এর তুলনামূলক অবস্থা;

৪। প্রচলিত সিলেবাসের দুর্বলতা সমূহ চিহ্নিতকরণ;

৫। পেশাদার ও মানসম্পন্ন সিলেবাস প্রণয়নে সুপারিশমালা;

৬। ITEE সিলেবাসের সাথে সমন্বয়পূর্বক একটি আদর্শ পেশাদার ও মানসম্পন্ন সিলেবাস প্রস্তুতকরণ;

৭। ITEE সিলেবাসে সুপারিশকৃত বিষয় ও অধ্যায়সমূহ অন্তর্ভুক্তকরণের একটি সার্বিক রুপরেখা;

৮। সুপারিশকৃত বিষয় ও অধ্যায়সমূহ পাঠদানে উপযুক্ত শিক্ষকের যোগ্যতা ও ব্যবস্থাপনা;

৯।সংশ্লিষ্ট অন্যান্য বিষয়।

সংযুক্তি
বাংলাদেশ কম্পিউটার কাউন্সিলের পত্র

মোহাম্মদ মাকছুদুর রহমান ভূঁইয়া
পরিচালক (ইনফরমেশন ম্যানেজমেন্ট,
কমিউনিকেশন এন্ড ট্রেনিং বিভাগ) (অতিরিক্ত
দায়িত্ব)
ফোন: ০১৯৪০-৫৬৫৭৭৮
ইমেইল: maksudur@ugc.gov.bd

বিতরণ (জ্যেষ্ঠতার ভিত্তিতে নয়):

১) সদস্য, সদস্যের দপ্তর, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

২) প্রফেসর ড. মোহাম্মদ মাহফুজুল ইসলাম, ভাইস চ্যান্সেলর, কানাডিয়ান ইউনিভার্সিটি অব বাংলাদেশ

৩) ড: মো: একরামুল হামিদ, অধ্যাপক, সিএসই বিভাগ, রাজশাহী বিশ্ববিদ্যালয়

৪) ড: মো: মামুনুর রশীদ, অধ্যাপক, ঢাকা বিশ্ববিদ্যালয়

৫) প্রফেসর ড. মুহাম্মদ নূরুল হুদা, অধ্যাপক, ইউনাইটেড ইন্টারন্যাশনাল ইউনিভার্সিটি

৬) ড. শামিম কায়সার, অধ্যাপক, জাহাঙ্গীরনগর বিশ্ববিদ্যালয়

৭) ফারহানা সরকার, সহযোগী অধ্যাপক, লিবারেল আর্টস ইউনিভার্সিটি অব বাংলাদেশ

৮) পরিচালক (ইনফরমেশন ম্যানেজমেন্ট, কমিউনিকেশন এন্ড ট্রেনিং বিভাগ) (অতিরিক্ত দায়িত্ব), ইনফরমেশন ম্যানেজমেন্ট, কমিউনিকেশন এন্ড ট্রেনিং বিভাগ, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

৯) সি. সহকারী পরিচালক / প্রোগ্রাম অফিসার (ইউডিএল), ইউজিসি ডিজিটাল লাইব্রেরী শাখা, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

স্মারক নম্বর: ৩৭.০১.০০০০.১১৪.৯৯.০০১.১৯.১৩/১(৬)

তারিখ: ২৪ জ্যৈষ্ঠ ১৪২৮
০৭ জুন ২০২১

সদয় অবগতি ও কার্যার্থে অনুলিপি প্রেরণ করা হ'ল (জ্যেষ্ঠতার ভিত্তিতে নয়)

১) পরিচালক/ চিফ রিসার্চ অফিসার (স্ট্র্যাটেজিক প্ল্যানিং এন্ড কোয়ালিটি এসুরেন্স বিভাগ) , স্ট্র্যাটেজিক প্ল্যানিং এন্ড কোয়ালিটি এসুরেন্স বিভাগ, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

২) পরিচালক (বেসরকারি বিশ্ববিদ্যালয় বিভাগ), বেসরকারি বিশ্ববিদ্যালয় বিভাগ, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

৩) পরিচালক (পাবলিক বিশ্ববিদ্যালয় ম্যানেজমেন্ট বিভাগ) (অতিরিক্ত দায়িত্ব), পাবলিক বিশ্ববিদ্যালয়

ম্যানেজমেন্ট বিভাগ, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

৪) পিএস (উপ-সচিব), চেয়ারম্যান এর দপ্তর, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

৫) সহকারী সচিব, সদস্যের দপ্তর, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

৬) ব্যক্তিগত কর্মকর্তা (পি ও) , সচিবালয় ও প্রশাসন বিভাগ, বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

নুসরাত শারভি
সি. সহকারী পরিচালক / প্রোগ্রাম অফিসার
(ইউডিএল)

University Grants Commission of Bangladesh

Agargaon, Sher-e-Bangla Nagar, Dhaka-1207
web: www.ugc.gov.bd

Record Number: 37.01.0000.114.99.001.19.23   Date: 18/7/2021

Subject: **Minutes of the 1st Meeting of the Committee for formulating guideline to incorporate ITEE syllabus into the CSE/IT related curriculum of the universities.**

Chairperson   : Professor Dr. Md. Sazzad Hossain, Member, UGC
Date   : 15 June 2021
Time   : 03:00 PM (BST)
Venue   : Online (Zoom Platform)
Attendance   : Attached

A fruitful meeting was held on 15 June 2021 with the welcome note from the Chair to formulate a guideline towards the incorporation of the Information Technology Engineers Examination (ITEE) Syllabus into the university's CSE/IT-related curriculum. The Chair welcomed all the committee members of this meeting with the expectation of fruitful discussion, comments, and views from the honorable faculty members to develop a guideline that will be helpful to adopt the ITEE syllabus for the universities. After that, the Chair requested Mr. Md. Golam Sarwar, Project Director, The Project for Skills Development of IT Engineers Targeting Japanese Market, Bangladesh Computer Council to moderate the meeting and to share the background of ITEE as well as to give a holistic picture for improving the quality of our CSE/IT related graduates in line with ITEE.

2. Agenda, Discussions and Decisions:

No	Agenda	Discussion	Remarks/Decision
i.	Explain Purpose	Md. Golam Sarwar, Project Director, The Project for Skills Development of IT Engineers Targeting Japanese Market, BCC explained the purpose of the committee elaborately with a detailed background story. He mentioned that a huge number of graduates passing out from CSE/IT related departments of	

		the universities. Though Bangladeshi students hold enough potentials to prove their ability at the international level with high standard quality but unfortunately it was not reflected in the passing rate of the ITEE exam comparing to the other 6 member countries. He noted that the ITEE syllabus and ITEE exam are the most standard tools to prove high professional skills since the syllabus is rightly balanced with technology, management and strategy. It is very effective to serve the nation with industrial improvement. It was found from the project activities with the universities that the current curriculums are so much technology oriented where IT Management & IT strategy skills are largely absent. So, the graduates are not able to show their skills compatibly with the international standard. A workshop was held in UGC in 2019 to share this issue with all universities and followed by the issuance of a letter from UGC to incorporate the ITEE syllabus but it seemed not sufficient to clear the matter about how to incorporate. He also mentioned that the ITEE Question-Making Committee (QMC) of Bangladesh has also suggested form a committee under UGC to make a clear guideline for this purpose. So, a guideline is required to make a clear direction about how to incorporate. As a result, UGC comes forward to the request from BCC and form this committee to develop a guideline about how to standardize CSE/IT curriculum with the incorporation of the ITEE syllabus by the universities.	
ii.	Key-note presentation on syllabus gap between	Mr. Yukinobu MIYAMOTO, Professor, Kobe Institute of Computing, Japan explained in detail the prevailing gap between	

		universities curriculum in Bangladesh and ITEE syllabus.	the university's curriculum in Bangladesh and ITEE syllabus with importance to update. A clear step by step observations he focused on in his presentation: • He surveyed the CSE/IT related curriculum of the universities of Bangladesh under BCC's ongoing project and found the gap, especially in the Strategy and Management domain. He mentioned that it is very essential to update the university's syllabus to build quality graduates and professional engineers for society and industry. • ITEE FE syllabus is well balanced with 3 fields, Technology-56%, Management-26% and Strategy-18% and questions are also set almost with the same proportion. • The cover rate of ITEE FE syllabus in CSE/IT related curriculum of most of the universities of Bangladesh are found like- Technology-67.86%, Management-0% and Strategy-3.85% and few of the universities like- Technology-83.93%, Management-61.11% and Strategy-42.31%. • Though there is not enough Japanese Universities CSE/IT-related syllabus that is in line with ITEE FE syllabus, there are enough common/liberal arts subjects that are pre-requirements before doing specialized education. • Therefore, it is found that Bangladeshi universities tend to bias toward technological fields. • The strategy and	

| | | management fields of the ITEE FE syllabus are well enough for the CSE/IT curriculum
• It is also equally important to be a skill in operation, management and dissemination of excellent technology efficiently and effectively.
• So, the ITEE FE syllabus could be the ideal to bring well balance between Technology, Strategy and Management in the curriculum.
• He also mentioned that despite having the potential of students of Bangladesh, it was experienced from the past ITEE FE exam that the students couldn't do well in FE AM exam since this exam is from memorizing capacity and questions set with well balanced among strategy, technology and management according to the syllabus.
• He also mentioned that a good number of ITEE FE passers are from those universities where the ITEE FE master trainers are available and active. | |
| iii. | Opinion from the Committee Members | Mr. Mohammad Maksudur Rahman Bhuiyan, Director (Additional Charge), IMCT Division, UGC informed that in conversation with various universities he came to know that there are different models of the syllabus to follow. In light of that, if this committee could offer a well-balanced syllabus model to the universities and the universities submit their syllabus to UGC according to that model, UGC will shortly go through this | 1. The current syllabus guideline of UGC for CSE/IT-related course-curriculum development will be shared for review.
2. ITEE syllabus will |

| | | proposal and ready to approve.

Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi shared that though the faculties of CSE/IT departments lack strategy and management fields, he was able to incorporate mostly with the support from business faculties. He hoped that the remaining portion would be incorporated soon. So, he opined that it is quite possible to incorporate.

Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh has pointed out that implementation of technological knowledge is the exact gap of Bangladeshi CSE/IT professionals. He also informed from his vast knowledge about ITEE that ITEE is the right tool to learn the society. So, to run society through the tech service industry need to learn professional's skill in strategy and management with technology. He also informed that the ITEE syllabus is regularly updated with technological evolve. In recent years ITEE gives importance to IT security. So, he opined that the university curriculum is also required to update on a regular basis. Therefore, he requested to review the current guideline of UGC for preparing the IT/CSE-related curriculum from the outcomes come out from this committee by developing a model syllabus within 140 credits and incorporating ITEE modules. He also mentioned that ITEE not only befits to bring more job opportunities in Japan but also ensures skilled professionals supply for the Bangladeshi ICT industry. He also noticed that the backdated topics could be | be shared with the members to review it with their own university's curriculum.
3. Faculty members will prepare a draft guideline to incorporate ITEE into the university's curriculum. |

			removed and replaced with ITEE modules.	
			Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University had agreed that the CSE/IT/ITE/IC degrees offered by the universities mostly ignore/uncover the current essential issues like corporate & legal affairs, service strategy, system strategy, system audit etc. So, he made his opinion to consider vendor-based certification course on these issues at the same time influencing to modernize university curriculum with addressing other related issues.	
			Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka had also agreed with points discussed by Dr. Mohammad Mahfuzul Islam, P. Eng, in addition, to focus on teachers' training and incorporate methods/directions. In this point of view, he also suggested develop a guideline about syllabus formulation.	
			Ms. Farhana Sarker, PhD, Assistant Professor, Department of CSE, University of Liberal Arts, Bangladesh also feels the importance to update the syllabus but it seems challenging to accommodate within 140 credits. So, a guideline inclusion with showing how to reduce some existing modules under what consideration and what must be included	
iv.	Finalize the Workplan		Based on the above discussion Engr. Md. Golam Sarwar requested to prepare a guideline within five meetings of this committee.	

v.	Wrap-up comments by the Convener	Professor Dr. Md. Sazzad Hossain, Member, UGC and Convener of the committee thanked all the members for their valuable comments with special thanks to Mr. Yukinobu MIYAMOTO, Professor, Kobe Institute of Computing, Japan and Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, the Canadian University of Bangladesh for sharing their experience with specific suggestions. He also appreciated BCC for noticing UGC and supporting this initiative. He mentioned that liberal arts education is now the essence of all education. So, now is the right time to change taking care of the students with the most updated curriculum. Updating syllabus needs to be considered in any form either credit-based or non-credit based with importance to increase more master trainers. He instructed that the guideline should be noted with a clear vision and mission statement and how to facilitate the guideline. Though this is challenging work, it is possible to bring out the best solution through this committee activity with teamwork. Here everyone believes this work is for the nation-building to reach our goal as a developed nation by 2041 and mark the significance of birth century of the Father of the Nation who dreamed of a golden Bangladesh and golden jubilee of our independence.	

03. Finally, since there were no more issues remaining for discussion, the convener again thanked everyone for their active participation with a hope for better contribution in the 2nd meeting and concluded the meeting.

Distribution (Not according to seniority):
1) Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice Chancellor, Canadian University of Bangladesh and Member of the Committee
2) Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi and Member of the Committee
3) Dr. Md. Mamun-or-Rashid, Professor, Department of CSE, University of Dhaka and Member of the Committee
4) Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka and Member of the Committee
5) Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University and Member of the Committee
6) Ms. Farhana Sarker, PhD, Assistant Professor, Department of CSE, University of Liberal Arts, Bangladesh and Member of the Committee
7) Mohammad Maksudur Rahman Bhuiyan, Director (Additional Charge), IMCT Division, UGC and Member of the Committee
8) Ms. Nushrat Sharita, Sr. Assistant Director, IMCT Division, UGC and Member-Secretary of the Committee

18-07-2021

Professor Dr. Md. Sazzad Hossain
Member, UGC and Convener
Committee for Developing Guideline to include ITEE Syllabus to the CSE/IT curriculum

Record Number:
37.01.0000.114.99.001.19.23/1(8)

Date: 18/7/2021

Copy for Kind Information and Necessary Action (Not according to seniority)
1) Parthapratim Deb, Executive Director, BCC
2) Mr. Yukinobu MIYAMOTO, Professor, Kobe Institute of Computing, Japan
3) Ms. Ginga Nakadai, Representative, JICA Bangladesh Office
4) Mr. Akihiro SHOJI, JICA Expert, The Project for Skills Development of ICT Engineers Targeting Japanese Market, JICA
5) Manager Operation, Bangladesh Computer Council
6) PS (Deputy Secretary), Office of the Chairman, UGC
7) Asst. Secretary, University Grants Commission of Bangladesh (UGC)
8) Personal Officer, University Grants Commission of Bangladesh (UGC)

18-07-2021
Nushrat Sharita
Sr. Assistant Director/Program Officer (UDL) and Member-Secretary Committee for Developing Guideline to include ITEE Syllabus to the CSE/IT curriculum

University Grants Commission of Bangladesh

Agargaon, Sher-e-Bangla Nagar, Dhaka-1207
web: www.ugc.gov.bd

Record Number: 37.01.0000.114.99.001.19.28   Date: 4/8/2021

Subject: **Minutes of the 2nd Meeting of the Committee for formulating guideline to incorporate ITEE syllabus into the CSE/IT related curriculum of the universities.**

Chairperson   : Professor Dr. Md. Sazzad Hossain, Member, UGC
Date   : 11 July 2021
Time   : 03:00 PM (BST)
Venue   : Online (Zoom Platform)
Attendance   : Attached

The 2nd meeting was held on 11 July 2021 with the welcome note from the Chair to formulate a guideline towards the incorporation of the Information Technology Engineers Examination (ITEE) Syllabus into the university's CSE/IT-related curriculum. The Chair welcomed all the committee members and requested to discuss the progress status of the decisions taken in the 1st meeting.

2. Agenda, Discussions and Decisions:

No	Agenda	Discussion	Remarks/Decision
i.	Discussion based on the decisions of 1st Meeting. The decisions were:	Decision-1: The current syllabus guideline of UGC for CSE/IT-related course-curriculum development will be shared for review. Progress: It was shared among the members to understand and compare the structure of the UGC guidelines and ITEE FE Syllabus. Decision-2: ITEE syllabus will be shared with the members to review it with their own university's curriculum. Progress: It was shared among the members to understand and compare the gap between the existing curriculum of their current universities and ITEE FE Syllabus. Decision-3: Faculty members will	

| | | prepare a draft guideline to incorporate ITEE into the university's curriculum.

Progress: All the members of the committee has been tried to review the shared materials in depth to understand the practicability of the ITEE FE syllabus in global context and standard and also tried to find out the gap or absent topics or contents in the existing curriculum of their own university compare to the ITEE FE syllabus.

So, the members explain or shared their documents with submitted opinion like below:

Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi notifying that their curriculum last updated in 2019-2020 session and also upgraded from syllabus to curriculum where the ITEE FE syllabus may covered at certain level though it was not enough. Currently they are trying to take the lectures on few Business Strategy and Management with the support from Business faculties but it was realized with not enough. Therefore, considering the overall context and urgent demand he advised the below points that possible to quickly address:

- IT/CSE faculties should be trained about IT business strategy and IT Business Management,
- the question pattern of ITEE exam should be taught by IT/CSE faculties through intensive training,
- Cyber law & security, corporate activities and legal affairs, Business Industry, System Audit & Planning, Business & Technological Strategy Management, Service Management and audit should | |

| | | be included into the curriculum in different method like-topic or contents covered under related subjects in every scope.
• He was fully agreed to consider the tentative curriculum structure developed by Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh in accommodation with ITEE syllabus along with other practical fields in long run to make our countries IT education with more practical oriented in excellent standard.
• Involve industry participants to learn industry management

Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh submitted a draft to discuss with minimum courses to cover ITEE syllabus. It was analysed in depth all the contents of the ITEE syllabus and nicely converted to bring under subject wise and very well design a tentative curriculum structure not only incorporating with ITEE FE syllabus contents but also accumulating the necessary fields to develop the internationally standard IT human resources from Bangladesh. The proposal also suggested few subjects to bring under compulsory courses and with a wide range of elective subjects to make the curriculum more global and practical oriented.

It was also introduced some subject to improve in research area and at the same time some subjects referred for global job market.

It was also advised to replace the demanding subject with trying to minimize some theoretical or backdated or less important subjects to modernize our IT/CSE curriculum in | |

| | | consideration of the world perspective.

So, it was expected more comments and recommendations from all other members to shape-up this curriculum structure in full consideration with all other relevant context.

It was also suggested the below matters for future activities:

- Technology and Business blended learning method to be developed

- Consider the scope of training for the faculties of CSE/IT on Technology and Business blended learning subjects

Mr. Mohammad Maksudur Rahman Bhuiyan, Director (Additional Charge), IMCT Division, UGC also shared that this is important to formulate the next policy regarding curriculum preparation inclusion the IT Strategy and IT Management with technology as it has been changed in American degrees in 2018 whereas our curriculum was not amended since 2018.

So, he requested the professional faculty members to formulate an amendment guideline inclusion with IT Strategy and IT Management and after that UGC may guide the universities in Bangladesh to update their curriculum according to the new guideline or policy.

Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka made his opinion in short to immediately take initiatives to include IT Management and IT Strategy related subjects and contents incorporate as compulsory.

It was also agreed to step by step implementation of the whole proposal | |

| | | offered by Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh in the long run since it is extensive but very much needed with course of time.

It was pointed out to check the scope to offer some post-graduate diploma course in composition with blending issues between technology and management by the universities.

Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University agreed in full with the proposal shared by Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh and then he advised the below points to consider at initial/immediate stage:

• IT/ICT related degrees may compromise with some basic science subjects which was studied at college/higher school level.
• He recommended the four subjects i.e.- Project Management, Service Operation Management, Business Strategy and Legal Affairs & Audit to include at least as elective courses immediately.
• It was advised to take some initiatives for faculty development for these subjects.
• The existing UGC guideline may cover to bring those changes in the curriculum without any rectification.

Ms. FarhanaSarker, PhD, Assistant Professor, Department of CSE, University of Liberal Arts (ULAB), Bangladesh shared her findings and opinion comparing the latest syllabus of ULAB and ITEE syllabus like below: | 1. Advise to review the guidline shared by Professor Dr. Mohammad |

		- It was found almost 80%-90% similarities in technological field whereas strategy and management part covered about only 10%. - It was finding the running syllabus is more theoretical oriented rather practical. - It was advised to refer the strategy and management courses with contents to include and it is required undoubtedly. - The offered curriculum structure by Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh is very much essential to implement in our curriculum to make the degrees more practical oriented. Professor Dr. Md. Sazzad Hossain, Member, UGC and Convener of the Committee reminded that all the changes and update must be considered to produce more perfect human being with grooming up the own historical contents and culture rather than machine like. We should focus on long term philosophy. So, the below points to consider to formulate the guideline and integrate ITEE contents in the curriculum - It was requested to extend the cooperation with same type of project to carry forward the progress in sustainable level. - The offered curriculum structure by Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh seemed to be fantastic but advised to review again with minimum distortion of the	Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh in light of the possibilities of immediate effect and keeping the national policy issues unchanged. 2. Consider the formulation of guideline structure in short so that it would be possible give fast instruction to universities. 3. Try to develop a gap analysis between existing curriculum and ITEE and other related with broader aspects. 4. Develop the final outputs of this committee within couple meetings by July/August 2021. 5. Tentative schedule for next meeting is 18/19 July 2021. It would

		existing philosophy of the guideline keeping the same educational concept. • Focus to develop successful human being with the basic human values not at the cost of liberal education. • Focus to produce human resources from computer science discipline with practical, professional and entrepreneurial knowledge at the same time good human beings. • The proposed guideline should be more general with accumulating the broader aspects like critically thinking person, job focused rather narrowed down because success depends on all capabilities. • Concentration to innovation and commercialization is very positive as it is now national demand but not sacrifice the national pride or history. • Consider the scope to disseminate the exam procedure, develop huge master trainer to focus ITEE. • Appreciated some new inclusion like cyber laws & securities, management topics and industry contents. • Consider to possible with short time initiatives not in long time required which may required long procedure. • Our expert should be develop focusing to our future, of concentrating to the global job market specially Japanese IT Industry where is enormous opportunity since our country is currently having huge demographic dividends.	be finalize by the Convener of the Committee.

| ii. | Wrap-up comments by the Convener | Professor Dr. Md. Sazzad Hossain, Member, UGC and Convener of the committee thanks all the members for their valuable contribution with a hope to further progress based on the taken decision and come with conclusion output within couple of meeting within very short time. | |

03. Finally, since there were no more issues remaining for discussion, the convener again thanks everyone for their active participation with hope for better contribution in the 3rd meeting for the further progress.

04-08-2021

Professor Dr. Md. Sazzad Hossain
Member, UGC and Convener
Committee for Developing Guideline to include ITEE Syllabus to the CSE/IT curriculum

Distribution (Not according to seniority):
1) Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice Chancellor, Canadian University of Bangladesh and Member of the Committee
2) Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi and Member of the Committee
3) Dr. Md. Mamun-or-Rashid, Professor, Department of CSE, University of Dhaka and Member of the Committee
4) Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka and Member of the Committee
5) Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University and Member of the Committee
6) Ms. Farhana Sarker, PhD, Assistant Professor, Department of CSE, University of Liberal Arts, Bangladesh and Member of the Committee

7) Mohammad Maksudur Rahman Bhuiyan, Director (Additional Charge), IMCT Division, UGC and Member of the Committee
8) Ms. Nushrat Sharita, Sr. Assistant Director, IMCT Division, UGC and Member-Secretary of the Committee

Record Number: Date: 4/8/2021
37.01.0000.114.99.001.19.28/1(6)

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04-08-2021
Nushrat Sharita
Sr. Assistant
Director/Program Officer
(UDL) and Member
Committee for Developing
Guideline to include ITEE
Syllabus to the CSE/IT
curriculum

বাংলাদেশ
বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

Record Number: 37.01.0000.114.99.001.19.30   Date: 17/8/2021

Subject: **Minutes of the 3rd Meeting of the Committee for formulating guideline to incorporate ITEE syllabus into the CSE/IT related curriculum of the universities.**

Chairperson   : Professor Dr. Md. Sazzad Hossain, Member, UGC
Date   :26 July 2021
Time   : 03:00 PM (BST)
Venue   : Online (Zoom Platform)
Attendance   : Attached

The 3rd meeting was held on 26 July 2021 with the welcome note from the Chair to formulate a guideline towards the incorporation of the Information Technology Engineers Examination (ITEE) Syllabus into the university's CSE/IT-related curriculum. The Chair welcomed all the committee members and requested to discuss the progress status of the decisions taken in the 2nd meeting.

2. Agenda, Discussions and Decisions:

No	Agenda	Discussion	Remarks/Decision
i.	Progress on decisions of 2nd Meeting.	**Decision-1**: Advise to review the guideline shared by Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh in light of the possibilities of immediate effect and keeping the national policy issues unchanged. **Progress**: The existing	

		guideline of UGC to develop CSE curriculum was checked and assessed to find the scope of ITEE FE Syllabus incorporation and found some point of discussion in this meeting which is described to next agenda.	
		Decision-2: Consider the formulation of guideline structure in short so that it would be possible to give instruction to the universities.	
		Progress: All the members submit their opinion with pros and cons to incorporate in the existing structure to find the direction unanimously.	
		Decision-3: Try to develop a gap analysis between existing curriculum and ITEE and other related with broader aspects.	
		Progress: The members pointed out the gaps with sharing the scope and limitation to incorporate with some alternate suggestions.	
		Decision-4: Develop the final outputs of this committee within couple meetings by July/August 2021.	
		Progress: It was found satisfactory progress to	

		bring the final outputs of this committee within August 2021.	
		Decision-5: Tentative schedule for next meeting is 18/19 July 2021. It would be finalize by the Convener of the Committee.	
		Progress: The meeting was held on 26th July 2021 instead of 18/19 July 2021 due to go through enough study and the vacation of Eid-ul-Azha 2021.	
ii.	Open Discussion on overall progress with findings and recommendations	Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi explained with a draft document to incorporate the IT Strategy and IT Management contents/courses in the Business Management & Accounting Module. The remaining technical courses could be added in the technical category. So, he advised that if UGC could issue a modified guideline, all the universities would give their effort to update their curriculum with inclusion of gap contents since universities follow the guidelines of UGC. Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka made	1. Prepare a course list from the gap analysis of our existing curriculum with ITEE syllabus. 2. Prepare the guideline document to be acceptable by all universities without changing the structural framework of current guideline. 3. Include all the study analysis, findings, recommendations with reference documents with a objective to future activities for a greater changes with all other relevant factors for the competitive market. 4. Do 1/2 professional discussion meeting among

		his opinion to include the gap contents or courses under the (i) Industrial & Operational Management and (ii) Project Management with keeping the Financial and Managerial Accounting courses.	the members to formulate the guideline as per instructions lead by Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh and submit within 2 weeks.
		Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh explained his findings from a surveyed on overall curriculum structure of CSE or other IT disciplines in leading global universities and found mainly 2 categories (i) fully specialized & (ii) 2 years on full GED subjects and next 2 years on specified courses where curriculum structure in the universities of Bangladesh is mostly generalized in all IT disciplines or degrees and found very close similarities in all offered IT relevant degrees. Courses or contents of ITEE syllabus might support well to streamline or specify the CSE/IT related curriculum more professional and industry oriented since ITEE contents are really need to learn by all students as universities are holding the sole responsibilities to	

| | | produce the quality graduates/professionals for the industry and for the global and national development. He also pointed out some difficulties to incorporate the gap contents or courses under the existing curriculum structure referred by the UGC where it is categorized in credit hours base with some compulsory subjects for each category. So, it was raised for point of discussion to find a suggestion or instruction from UGC about how to incorporate the gap contents in our CSE/IT related curriculum from ITEE syllabus. It was also requested to check the justification of the quantity of general courses in relation with the CSE/IT related curriculum.

Dr. Md. Mamun-or-Rashid, Professor, Department of CSE, University of Dhaka checked the standard of curriculum with ITEE syllabus and global perspective with agreed conditions. At the same time, he also mentioned that since the concern department are mostly responsible to develop the curriculum based on the ability so it is very difficult to incorporate | |
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| | | in the existing curriculum right at this moment. Therefore, it was advised to offer with the name of Professional or Advance Professional Course based on receiving our curriculum gap contents from ITEE syllabus.

Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University advised to immediate incorporate of some important courses from ITEE syllabus like-Project Management, Service Operation Management, Business Strategy and Legal Affairs & Audit to include at least as elective courses. And gradually providing with related training to the faculty members on the overall gap contents on IT Strategy and IT Management from ITEE syllabus to strengthen the department abilities to incorporate those courses in the curriculum structure as compulsory or priority courses.

Mr. Mohammad Maksudur Rahman Bhuiyan, Director (Additional Charge), IMCT Division, UGC notified that the last update of UGC | |
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| | | guideline related to curriculum preparation is also formulated by the experienced faculty members and now it requires to continuous update with the global changes. Currently UGC pay more focus to approve the university curriculum in compliance with the UGC guideline. So implementation of any update or addition not that much challenging for UGC.

Ms. Farhana Sarker, PhD, Assistant Professor, Department of CSE, University of Liberal Arts (ULAB), Bangladesh was also agreed to find the scope of immediate incorporation of gap contents from ITEE syllabus as elective or optional under the existing UGC guideline structure.

Professor Dr. Md. Sazzad Hossain, Member, UGC and Convener of the Committee appreciated the progress of committee activities. He agreed with all the suggestions come from the members since the overall goal of all universities to produce quality and skill human resources for the competitive market and for developed society. He mentioned that as a | |
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		regulatory body UGC may take role, but due to some procedural lengthiness and legal matters he advised the following with some given decisions to implement the committee outcomes with immediate effect: 1. Please check the scope of incorporation of IT Strategy and IT Management in offered list of subjects under business module as optional course. 2. List down the benefits of the ITEE contents and text into the guideline to understand the importance 3. Simplify the guideline to incorporate ITEE contents in continuous approach. 4. Mainly focus to prepare the guideline in generalize approach, ITEE Centric and as Optional/Elective courses with priority given for specific professional.	

ii.	Wrap-up comments by the Convener	Professor Dr. Md. Sazzad Hossain, Member, UGC and Convener of the committee thanks all the members for their valuable and thoughtful contribution to bring a valuable output for our current and future CSE/IT curriculum development.	

03. Finally, since there were no more issues remaining for discussion, the convener declared end of the 3rd meeting with a hope for a final shape of the outcome in the next meetings.

17-08-2021
Professor Dr. Md. Sazzad Hossain
Member, UGC and Convener Committee for Developing Guideline to include ITEE Syllabus to the CSE/IT curriculum

Distribution (Not according to seniority):
1) Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice Chancellor, Canadian University of Bangladesh and Member of the Committee
2) Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi and Member of the Committee
3) Dr. Md. Mamun-or-Rashid, Professor, Department of CSE, University of Dhaka and Member of the Committee
4) Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka and Member of the Committee
5) Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University and Member of the Committee
6) Ms. Farhana Sarker, PhD, Assistant Professor, Department of CSE,

University of Liberal Arts, Bangladesh and Member of the Committee
7) Mohammad Maksudur Rahman Bhuiyan, Director (Additional Charge), IMCT Division, UGC and Member of the Committee
8) Ms. Nushrat Sharita, Sr. Assistant Director, IMCT Division, UGC and Member-Secretary of the Committee

Record Number: 37.01.0000.114.99.001.19.30/1(6)   Date: 17/8/2021

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17-08-2021
Nushrat Sharita
Sr. Assistant
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Record Number: 37.01.0000.114.99.001.19.32   Date: 6/9/2021

Subject: **Minutes of the 4th Meeting of the Committee for formulating guideline to incorporate ITEE syllabus into the CSE/IT related curriculum of the universities**.

Chairperson   : Professor Dr. Mohammad Mahfuzul Islam, P. Eng,
                  Vice-Chancellor, Canadian University of Bangladesh
Date   : 08 August 2021
Time   : 04:00 PM (BST)
Venue   : Online (Zoom Platform)
Attendance   : Attached

The 4th meeting was held as per the decision no. 4 of 3rd meeting chaired by **Professor Dr. Mohammad Mahfuzul Islam, P. Eng** on 08 August 2021 to formulate a draft guideline towards the incorporation of required chapters or contents from the Information Technology Engineers Examination (ITEE) Syllabus into the university's CSE/IT-related curriculum with a objective to standardize and professionalize with global benchmark. The Chair welcomed all the committee members and requested to discuss the progress status of the decisions taken in the 3rd meeting.

2. Agenda, Discussions and Decisions:

No	Agenda	Discussion	Remarks/Decision
i.	Progress on decisions of 3rd Meeting.	**Decision-1**: Prepare a course list from the gap analysis of our existing curriculum with ITEE syllabus. **Progress**: The gap was identified from detail review and thorughly discussions among the members. The gap	

| | | contents like to be pointed in the final guideline.

Decision-2: Prepare the guideline document to be acceptable by all universities without changing the structural framework of current guideline.

Progress: The drafts was under preparation according to the existing framework of the guideline of UGC.

Decision-3: Include all the study analysis, findings, recommendations with reference documents with a objective to future activities for a greater changes with all other relevant factors for the competitive market.

Progress: Various types of recommendations, findings and references are discussed & analyzed in the meeting and also to be reflected in the final version of the guideline.

Decision-4: Do 1/2 professional discussion meeting among the members to formulate the guideline as per instructions lead by Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh and submit within 2 weeks. | |

		Progress: The today's discussion of the meeting was the part of this decision and have fruitful discussion	
ii.	Open Discussion on overall progress with findings and recommendations	As per the last the advise from the Professor Dr. Md. Sazzad Hossain, Member of UGC and convener of the Committee, Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh formulated a draft guideline which was distributed to all the members a couple of days before of the meeting for their assessment, reviews and suggestions. All the members appreciated the draft guideline where most of the gap or required contents are nicely included in various categories with appropriate credit allocation in considering the all aspect of national compliance and fundamental spirit of existing guideline. Thereafter, there were some findings, recommendations and points of considerations come out from the overall discussions as described below: • Offering the most relevant	1. Revised draft will be shared with all members before the next meeting to make finalize. 2. Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh will revise the draft as per findings, recommendation and point of consideration. 3. The next meeting will be held within two weeks. 4. Ensure the inclusion of introduction, objective, background, findings, recommendations are narrated in the proposed guideline for better implementation.

		contents to CSE from the basic science courses keeping the subject title same. • Try to replace most irrelevant contents with absent appropriate contents in every course under the current guideline. • Require to maintain a categorical balance in credit allocation to avoid the overloaded reflection. • Corporate & legal affairs may consider under Science and Humanities categories, Project Management under core course with relevant title changes. • Choose contents under business courses should be taught by the CSE faculties instead of business faculties for appropriate knowledge sharing for the CSE/IT related students. • Consolidate the selection options	

		by combining the courses in group wise offer, so that the possibilities to increase to chose the most relevant courses. • Approach the distribution of courses technically and balanced wise credit allocation so that never seems too loaded in particular category. • Elective courses may offer with more advance courses.	
ii.	Wrap-up comments by the Convener	**Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh** thanks to all for their thoughtful comments, findings and recommendations for a better guideline for our future generation.	

03. Finally, since there were no more issues remaining for discussion, the meeting was declared end with a hope to finalize the outcome in the next meetings.

MR. Bhuiy-

06-09-2021

Mohammad Maksudur Rahman
Bhuiyan

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Member, University Grants Commission

Director (Additional Charge),
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2) Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice Chancellor, Canadian University of Bangladesh and Member of the Committee
3) Dr. Md. Ekramul Hamid, Professor, Department of CSE and Dean, Faculty of Engineering, University of Rajshahi and Member of the Committee
4) Dr. Md. Mamun-or-Rashid, Professor, Department of CSE, University of Dhaka and Member of the Committee
5) Dr. Mohammad Nurul Huda, Professor, Department of CSE, United International University, Dhaka and Member of the Committee
6) Dr. M Shamim Kaiser, Professor, Institute of Information Technology, Jahangirnagar University and Member of the Committee
7) Ms. Farhana Sarker, PhD, Assistant Professor, Department of CSE, University of Liberal Arts, Bangladesh and Member of the Committee
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Record Number: 37.01.0000.114.99.001.19.32/1(6)

Date: 6/9/2021

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06-09-2021

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Record Number: 37.01.0000.114.99.001.19.38   Date: 28/9/2021

Subject: **Minutes of the 5thMeeting of the CSE/IT Syllabus Guideline Formulation Committee to Standardize with international Standard and ITEE Syllabus.**

Chairperson   : Professor Dr. Md. Sazzad Hossain, Member, UGC
Date   : 08 September 2021
Time   : 03:30 PM (BST)
Venue   : Online (Zoom Platform)
Attendance   : Attached

       The 5th meeting was held on 08 September 2021 with the welcome note from the Chair to formulate a standard guideline for the CSE/IT related syllabus of the universities in line with international standard and Information Technology Engineers Examination (ITEE) syllabus with an objective to standardize and professionalize with global benchmark. The Chair welcomed all the committee members and requested to discuss the progress status of the decisions taken in the 4th meeting.

2. Agenda, Discussions and Decisions:

No	Agenda	Discussion	Remarks/Decision
i.	Progress on decisions of4th Meeting.	**Decision-i**: Revised draft will be shared with all members before the next meeting to make finalize. **Progress**: The revised draft was shared with all the members of the committee to make it finalize as appropriate before the next meeting. **Decision-ii.** Professor Dr. Mohammad Mahfuzul Islam,	

| | | P. Eng, Vice-Chancellor, Canadian University of Bangladesh will revise the draft as per findings, recommendation and point of consideration.

Progress: Professor Dr. Mohammad Mahfuzul Islam, P. Eng, Vice-Chancellor, Canadian University of Bangladesh made necessary revision as per the findings, recommendation and point of consideration advised in 4th meeting.

Decision-iii. The next meeting will be held within one week.

Progress: Due to the engagement of various regular works it was delayed with two weeks to hold the meeting.

Decision-iv. Ensure the inclusion of introduction, objective, background, findings, recommendations are narrated in the proposed guideline for better implementation.

Progress: It was discussed and understood to articulate in the guideline and that would be added adequately with the approved guideline. | |
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| ii. | Open Discussion on overall progress with findings and recommendations | At the beginning of the meeting it was explained and discussed about the progress made-up from the last meeting. As per the given instruction by **Professor Dr. Md. Sazzad Hossain, Member** of UGC and convener of the Committee, the revision, addition and modification was made with remaining | 1. The proposed guideline to be approved by UGC officially.
2. The printed copy of the guideline should be distributed to all the |

| | | unchanged in overall structure of the existing UGC guideline. The revision, addition and modification was made with some order and credit hours rearrangement keeping wide range of options to choose the competitive courses as per international standard and to uphold compulsory subjects under the applied national policy. It was also made the appropriate correction of prevailing error in the existing guideline.

After hearing and discussing about all the aspects of the draft guideline, it was unanimously accepted by all the members with no other requirement for further changes and appreciated by all.

Thereafter **Professor Dr. Md. Sazzad Hossain, Member** of UGC and convener of the Committee put some valuable comments and advise to apply the new guideline with efficient and effective manner to all the relevant stakeholder which are like below:

- The approved guideline should contain an executive summary, detail background, justification of standardization with global changes and industrial demand for the right kind of human resources development for local | universities with a given instruction to bring changes to their existing curriculum as per newly approved and issued guideline.
3. Submit the final version of the guideline accumulating with all the comments and advise made by the convenor.
4. A nationwide workshop to be organized to officially launch the newly approved guideline and demonstrate the know how. |

		and world market. • The approved guideline should be appended with a flow-chart of detail procedure carried over to do that, use references, checked area and list of detail changes with perspective, gap analysis. • The guideline should be approached with a good introductory paragraph as well as recommendations and concluding remarks.	
ii.	Wrap-up comments by the Convener	**Professor Dr. Md. Sazzad Hossain, Member of UGC and convener of the Committee** thanks to all to contribute from their depth of knowledge with a successful outcome of this committee with hoping to implement this guideline with all-out effort by all together.	

03. Finally, since there were no more issues remaining to discuss, the meeting was concluded with thanks.

04-10-2021

Professor Dr. Md. Sazzad Hossain

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3) Dr. Md. Mamun-or-Rashid, Professor,
Department of CSE, University of Dhaka
and Member of the Committee
4) Dr. Mohammad Nurul Huda, Professor,
Department of CSE, United International
University, Dhaka and Member of the
Committee
5) Dr. M Shamim Kaiser, Professor,
Institute of Information Technology,
Jahangirnagar University and Member of
the Committee
6) Ms. Farhana Sarker, PhD, Assistant
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Record Number: Date: 28/9/2021
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04-10-2021

Nushrat Sharita

Sr. Assistant

Director/Program Officer

(UDL)

21.0   List of References :

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    Preparing Standard Curriculum of BSc in CSE/IT/ICE/ICT as per
    International Standard and ITEE Syllabus