Intercultural Education in Engineering Curriculum: A Review of Communication Courses for Undergraduate Students in India

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Abstract: Intercultural communication in the Indian Information Technology (IT) industry is an everyday reality. Today, many companies are multinational; and those which are not, are still multicultural owing to huge cultural diversity within the nation. However, despite a harmonious coexistence of multiple cultures, the possibility of conflicts resulting from cultural diversity is palpable. Such conflicts, or likes and dislikes, arising out of cultural stereotypes often impede accurate evaluation of a person's communicative intentions and behaviour. This becomes a potential hazard at the professional as well as the personal front. Given that businesses are no more restricted to geographical boundaries, nor are companies hiring manpower from one location, the need to study and cultivate intercultural communication competence (ICC) becomes fundamental to business success. As part of a research work on ICC in the Indian Information Technology industry, this study analyses communication related courses currently being offered to undergraduate (Bachelor of Engineering and Bachelor of Technology) students of the top ten engineering institutions of India, as identified in the 2017 Rankings by National Institutional Ranking Framework (NIRF) for Department of Higher

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Department of Humanities and Social Sciences, Birla Institute of Technology and Sciences (BITS), Pilani Campus, Rajasthan, India Education, Ministry of Human Resource Development, Government of India, to see if current academic curriculum is adequately educating students for effective intercultural communication at the workplace. Findings suggest that the importance and need of intercultural education has mildly been realized, but its inclusion in current course curriculum is negligible. Limitations of the study and suggestions on how to introduce ICC in class are discussed.

Keywords: Intercultural Education, Indian IT Industry, Intercultural communication competence, Engineering Education

1. Introduction

Intercultural communication, owing to cheap data services, subsidized call rates, and advances in the field of information technology, is an everyday reality. Whether commenting on a post at some social networking site, or reading articles and blogs, or watching a DIY (Do It Yourself) video, we are communicating globally, continuously! People from all over the world use these platforms to express their feelings, opinion/dissent, and likes/dislikes. In the real world, we often go to different states and countries for educational or professional purposes, and come across different cultures. We face difficulties in understanding the people, their language, and adjusting to the place. Often, our past experiences, the hearsays, or the cultural stereotypes sneak in, and we start viewing people through those lenses. We form an opinion prior to an actual interaction, and sometimes, this pre-formed opinion is so dominant that it influences our attitude as well as our behaviour towards other cultures. But the question is: How frequently do we think of the consequences of such pre-formed opinions? Do we ever think that whatever we say, do, or write becomes the very basis of opinion formation for our culturally-distinct communication counterparts?

Such thoughts seldom come to us; while the fact is, our carelessness about what we say or write can hurt a person, community, or even a country. For instance, the famous Kanamara Matsuri festival of Japan is a "serious religious affair, linked to Japan's nature-worshipping Shinto religion" (Hoy, 2017). However, to many other countries, this festival may seem quirky, funny, or even vulgar and notorious, merely because we, as outsiders, are unaware of the Japanese history and the relevance of the festival with the Japanese culture.

Chen & Starosta (2000) conceptualize intercultural communication competence (ICC) as an umbrella concept which comprises of a person's cognitive, affective, and behavioral abilities in the process of intercultural communication. This implies that for competent intercultural communication, one not only needs sufficient language skills and knowledge about the different cultures, but also an active and positive desire to understand and appreciate cultural differences and similarities. In the Indian context, cultivating ICC is even more necessary because India is a land of multiple cultures. The cultural diversity is well explained by an old popular saying: Kos kos par badle paani, char kos par vaani (the quality of water in India changes in almost every two miles, and in every nine miles, one may experience a change in the quality of one's speech/speaking style/language itself). The presence of multiple religions in every state of India further enriches the cultural milieu. And language is not the only marker of cultural difference in India, one experiences difference in dressing style, food, customs, festivals and art forms, as well as in the their non verbal communication, most notable in the communication styles and gestures. The differences are so distinct that they have engendered lasting stereotypes for almost every culture, which further affect one's attitude towards people from different cultures. While biases are a part of our social setting, they become a potential threat in the organizational context. Bharwaj (2016) points that an ethical organisation "has to ensure that individual employees do not carry such biased attitudes to the workplace when interacting with their colleagues."

The Indian IT industry, in which the study at hand is based, has huge cultural diversity. At such a workplace, one's insensitivity towards other cultures or one's culturally-inappropriate behaviour during a conversation with clients/customers from different cultures may end up incurring losses for the individual as well as for the company. A high rank manager in an IT company in India once told in a personal conversation that they do not prefer letting the new joiners deal with culturally different clients because this runs the danger of putting the whole business at risk. He supported his statement with his own experience saying that the new joiners come from colleges where they are encouraged to speak a lot; especially in the group discussions, they are made to feel that the more you speak, the smarter you are and thus, more valuable and desirable. Students equate fluency to throwing out words incessantly, and for this reason, they grab every opportunity to display their knowledge by using big words, jargons, and unnecessarily elongated sentences. In reality, mere speaking is not required at all at the workplace! When one has to deal with the clients/customers, it is less of words and more of strategic and careful speaking which is desirable.

The fault, in part, lies with the teaching methods, if not with the objectives of teaching. A lack of courses on strategic communication, communication management, intercultural sensitivity, intercultural communication, and other such areas further heightens the issue. To address such issues, one needs to consider the evaluation of the courses to see what is actually lacking and what needs to be included to cater to industry needs. Research in the field is meager; although some scholars have explored communication courses taught to engineering students, hardly anyone has looked at them from the perspective of intercultural communication. Most just focus on English, which is one of the cognitive competencies required for intercultural communication. Other competencies, pertaining to the attitudinal and the behavioural dimensions of ICC, have not received adequate scholarly attention.

This paper analyses courses through the lenses of intercultural communication competence. The study at hand is a part of a PhD research work on ICC in the Indian Information Technology industry in which one

of the objectives was to see if there is a change in the overall intercultural communication competence (ICC scores) of those who studied or received on-thejob training about cross-cultural differences and similarities and those who did not. A total of 373 IT professionals in India were surveyed and data was analyzed using SPSS version 16.0. The findings showed that there is a significant difference in the scores of ICC for those who studied about crosscultural differences and similarities during their university education and those who did not. Similarly, there was significant difference in the ICC scores of those who received on-the-job training (to prepare them for communicating with different cultures) and those who did not, with those scoring higher who studied or received training in some form. Thus, respondents who studied about cross-cultural differences and similarities perceived themselves to be more competent for intercultural communication than those who did not study any such course. This encouraged the researchers to analyze communication courses offered to undergraduate engineering (Bachelor of Engineering and Bachelor of Technology) students of India to see if current academic curriculum is adequately educating students for competent and effective intercultural communication at the workplace.

2. Literature Review

Defined broadly, intercultural communication competence (ICC) is the ability to communicate effectively and appropriately in various communication situations with people from cultures other than their own. Intercultural communication (IC) does not necessarily take place between different countries; it may happen within a country which has vast cultural diversity. Chen and Starosta (1997) identify three main dimensions of ICC: intercultural awareness (cognitive ability), intercultural sensitivity (affective ability), and intercultural adroitness (behavioral ability). Each of these dimensions contains a set of elements. While sensitivity requires a change in one's attitude towards other cultures, awareness includes knowledge of the working languages, of the cultures with which one interacts, and about oneself. Obviously learning the cultural practices, customs or rituals of all cultures is difficult, but we can indeed suspend our prompt judgment, exercise caution, be sensitive to the context and nonverbal cues, and then adjust our communication style accordingly.

The Indian IT companies are culturally diverse, not as much because of physical migration as because of what Aneesh (2000) calls 'virtual migration' of its workforce. With ICTs and online connections, it is not uncommon to see employees working on projects as part of a virtual team "consisting of colleagues, managers and customers spread across several geographical locations" (Upadhya & Vasavi, 2006, p. 24). Due to this cultural diversity, companies recruit "candidates with a certain blend of technical, social, and cultural skills" who further receive intensive technical and soft-skills training to transform them "into effective 'global professionals' who are able to interact with customers and colleagues abroad in socially appropriate ways" (Upadhya & Vasavi, 2006, p. ii). Upadhya & Vasavi (2006) note: "the large software services companies hire engineering graduates from any stream, or MCAs with the right aptitude, and then put them through a thorough entrylevel training course" because most companies look "for 'learnability' rather than knowledge of any particular technology or specific skills" (p. 31). They stress that apart from 'learnability', employers place great emphasis on attitude and values, personality, and soft skills of the candidates. This clearly indicates that more than knowledge, what is required and stressed upon during recruitment and the work thereafter is an apt aptitude and the "right 'attitude', by which they mean flexibility and malleability" (Upadhya & Vasavi, 2006, p. 32). Given that the right attitude and the right aptitude are of utmost importance, can one discount the importance of communication skills in the Indian IT industry? The answer is, of course, 'No', because, as Upadhya and Vasavi (2006) point, "a candidate may be rejected purely on the basis of poor communication skills" (p. 32). The authors emphasize that the first requirement of a good communication skill is "fluency in English: this is needed not only to be able to deal with foreign customers effectively, but also because the IT workforce is diverse and the only available link language is English" (p. 32). Good communication skills is required "not only to understand and communicate with clients about the project, but also to make small talk and socialize with people from different backgrounds" (p. 33), as these are considered indispensable skills for client-facing positions in the industry.

Although fluency and proficiency in English are vital for employability in the sector, it has been found that "A significant proportion of graduates, nearly 47 per cent, were found not employable in any sector,

given their English language and cognitive skills" (British Council, 2015, p. 66). Another study by P'Rayan (2008) has similar results. The author critically evaluates an English course taught in the colleges affiliated to Anna University in order to identify skills/competencies needed by engineering graduates. He argues that the course does not meet the present and future needs of the students as most students lack the skill sets required by companies and there is a wide gap between the examination scores and language proficiency of the students. Along similar lines, Sasidharan (2012) attempts to contrast industry needs with the English syllabus of different Engineering colleges of Orissa, and argues that although the objectives of the courses are ambitious and praiseworthy, the proper implementation suffers from lack of teachers' training and sufficient infrastructure. Further, the study showed that students were in urgent need of training in soft-skills and interpersonal communication skills. Thus, one can clearly see that while the need for proficient English speaking engineers is growing rapidly in the industry, the industry requirements are hardly being fulfilled by the current communication course curriculum. In terms of the economic returns to English language skills in India, research shows that wages are on average 32% higher for men speaking fluent English and 13% higher for men speaking a little English relative to men who do not speak English. For women, the average return is 22% for fluent English and 10% for a little English (Azam, Chin & Prakash, 2013). Thus, in addition to social prestige, spoken English in India carries with it some monetary advantage as well, which further mandates the need to improve one's fluency and proficiency in English.

In intercultural interactions, however, non verbal communication matters as much as verbal. Even the inability to understand other cultures' accent or the use of slang can contribute to frustration and dissatisfaction (Shah & Barker, 2017). Shah and Barker (2017) studied Indian IT expatriates' challenges in Australia and found that whether it is about seeking help, giving feedback, expressing disagreement or refusing a request, there were vast differences in the way both cultures communicated. As a result, differences in communicating led to misunderstanding. The authors suggest embedding a cultural learning framework in cross-cultural training programs to make cultural norms explicit, thereby contributing to productive and culturally diverse

workplaces. This seems an apt suggestion more so because research also reveals that companies conscious of diversity (gender, racial and ethnic) are "likely to have financial returns that were above their national industry median" (Hunt et al., 2015, p. 1).

If we look at the number of universities teaching about ICC, it is almost negligible. Rao & Thombre (2015) make an interesting point when they argue that in India, communication equals mass communication; as such, there are a number of colleges and universities offering mass communication courses but none teaching about ICC. They argue, "Universities do not offer public speaking, interpersonal communication, rhetoric, or intercultural communication courses to their students. It is left to the Indian Institutes of Management and other business schools to offer a smattering of conflict resolution, negotiation, organizational behaviour, and marketing classes" (in Preface) The authors emphasize expanding communication studies to include intercultural communication courses so that students learn the fundamentals of intercultural communication among Indians as well as with the outsiders.

In order to see if these suggestions by scholars, across industry and academia, have been incorporated in current communication courses, we reviewed communication courses of the top ten Engineering Institutions of India. The disciplines of Computer Science and Information Technology have been chosen for the evaluation of courses, because graduates from these disciplines form a major part of the Indian Information Technology (IT) industry. The objective is to see if current academic curriculum is adequately educating students for competent and effective intercultural communication at the workplace. We aim to answer three research questions:

R1: Which of the communication related skill sets are focused upon in the current compulsory courses offered to undergraduate students by the department of Humanities and Social Sciences?

R2: Are any of the areas of ICC covered, and if so, which department is offering those courses?

R3: Is intercultural education a mandatory part of the curriculum?

3. Methodology

To choose institutions for the purpose of this study, we referred to the 2017 Rankings by National Institutional Ranking Framework (NIRF) for Department of Higher Education, Ministry of Human Resource Development, Government of India. The NIRF (2017) ranking, apart from bestowing credibility and authenticity, ranks institutions on an overall basis, as well as on the basis of the discipline. We chose the rankings for the Engineering discipline.

To review the courses, we referred to the course curriculum of the BE and B.Tech courses offered at these institutions. Although, we reviewed the communication courses for only one discipline, that is, Computer Science and Engineering (CSE), we did refer to the disciplines of Electronic Communication & Engineering (ECE), Electronics & Electrical Engineering (EEE), and Electrical Engineering (EE), wherever available, to strengthen and validate our observations. The reason to limit to only the CSE discipline is that these are the ones who form a substantial part of the IT industry. Since a small number IT professionals are also from the ECE and EE, we referred to these departments as well. Other engineering disciplines like BE/B.Tech in Biotechnology, Chemical engineering, etc were not considered. We referred to the course structure to list communication related courses. Since many of the communication related education is imparted by the Department of Humanities and Social Sciences, and some components of ICC relate to business communication and organizational behaviour, we referred to courses offered by the Department of Humanities and Social Sciences (HSS) as well as the Department of Management. After a careful listing of all communication courses, we assessed the syllabus/course summary. We also referred to Courses of Study, Rules and Regulations, and other such relevant documents. Subsequently, a systematic classification of the same was done, which has been discussed in detail in the 'Findings' section.

4. Findings

A detailed analysis of the courses revealed that even today, courses on intercultural communication are barely included in communication studies. The current communication courses fall in four main categories, of which, the category focusing on English communication skills dominates the most. Table 1

thematically categorises the courses and answers our R1: "Which of the communication related skill sets are focused upon in the current compulsory courses offered to undergraduate students by the department of Humanities and Social Sciences?"

Table 1. Compulsory courses offered to Engineering students by the Dept. of Humanities & Social Sciences

Courses from core disciplines		Communication related courses (Focus on LSRW)			
 2. 3. 4. 	Literature, Philosophy, Psychology Sociology (or any HSS elective) Introduction to Humanities and Social Sciences Electives from Liberal & Creative Arts Environmental Science & Engineering†	 English for Communication Language and writing skills Communication skills* English Language and Composition Foundation English, Technical English† Basic Writing Skills, Technical writing, Reading and comprehension, short stories 			
Value based courses		Management related courses			
1. 2.	Life- Skills, Self Awareness Ethics and Self Awareness*	1. Principles of Management [†]			

As evident, the first category is of core discipline courses like Literature, Cultural Studies, Philosophy, Linguistics, Gender Studies, and Liberal Arts among others. The second category is of courses on English language, focusing chiefly on the four skills of English namely Listening, Speaking, Reading and Writing (LSRW). All of these courses are compulsory but some are non-graded or just pass/fail courses. This suggests that assessment of competence in these courses may not be as important as in other courses. Another reason for keeping them so could be to encourage more students to come to the classes because many Indian students fear being assessed on

Offered together as compulsory core subjects (at Institute I-6)

Offered together as compulsory department core subjects (at Institute I-8)

their spoken/written skills, due to which, most of them skip such classes. The third category of courses is that of value-based courses which teach about ways of dealing with life in general and college in particular. And the fourth category is of courses related to the discipline of Management, which teaches ways of controlling, directing, and managing the human resources among others.

Some institutions offer these courses in combination. A detailed classification has been presented in Table 2, which shows findings university-wise and discipline-wise. Table 2 addresses R2 and R3. For each university, the authors referred to all courses offered by the two departments. as mentioned earlier. For each department, the courses, covering any of the areas of ICC, were chosen for review. Where it was felt that some courses, covering a few areas of ICC, are available but currently not offered as a compulsory subject, a third section (row-wise) was made. Courses were further checked for their inclusion in the BE/B.Tech curriculum. The authors also tried to know whether they are graded/non-graded or pass/fail (P/F) course. Table 2 lists the name of the courses as introduced in the institutions. Most of the course descriptions are self explanatory, and for some which need clarification, information in brackets has been provided alongside.

A cursory look at the table reveals two things: First, even today, ICC is not being taught as a compulsory

core subject in any of these institutions. Second, although there are some courses which cover a few areas of ICC, they are only offered as electives, that too, majorly by the department of Management.

While Rao & Thombre (2015) consider study of intercultural communication as a requisite step for improved understanding of one self, reduced conflict, and effective communication among culturally diverse groups in a modernizing India, it is sad to see that in these ten institutions, ICC education is not a compulsory part of the UG engineering curriculum yet. These being the top ten, one can easily visualize the situation in other institutions. Industry experience, in the form of internships, on-field visits, and projects, does give real-life exposure, but it only equips with the technical knowhow. Communication related exposure remains restricted, because students do not get to communicate with important clients and customers of the company, especially when they are from a different culture.

5. Discussion

Evidently, there is dearth of comprehensive courses on ICC, but what adds more to this is that, wherever available, topics under ICC, like coping with stress, dealing with cross-cultural issues, and negotiating identities and conflicts, are being offered as subtopics under core Management courses. This finding is in line with the observations of Rao &

Table 2. Discipline-wise classification of courses covering areas of Intercultural Communication Competence

Institute	Department	Course Description	Compulsory Part of BE/B.Tech. Curriculum	Туре	Note
I-1	HSS	Life- Skills, Self Awareness (Value based courses)	Yes	Pass/Fail course	For freshmen
	Management	Cross-cultural Management, Soft Skills Development Workshop	No	Elective	
I-2	HSS	Literature/Philosophy/Psychology/ Sociology (CSE UG, 2013 onwards)	Yes	Institute Core	
		Stress and coping, Management of HR in Organizations	No	Elective	
	Management	No specific course on cross-cultural or intercultural communication	-	-	
I-3	HSS	English for Communication	Yes	Core	
	Management	Oral Business communication, Written business communication, Competency Management, among others	No	MBA Electives	



I-4	HSS	 Introduction to Humanities and Social Sciences (Core) Language and writing skills (LWS) 	Yes	Core	LWS is non graded
	HSS	Some under Organizational Behaviour (communication within organization), some on coping with stress	No	Insufficient information	Courses of Study 2015-16
	Management	Global Strategic Management, International competitiveness (Enhancing competitiveness, Evaluating competitiveness), International HRM (Cross cultural issues)	No	Electives	
I-5	HSS	English Language and Composition/Communication Skills (focus on LSRW)	Yes	Core	Referred to CSE syllabus
	HSS	Global Communication/Intercultural Communication, Social Psychology of Industrial Organizations (Communication, Conflicts and Negotiations), Soft Skills and Personality Development	No	Insufficient information	
	Management	Organization Structure and Behaviour, International Business Management, Managing Service Operations (Cross- Cultural Issues)	No	Insufficient information	
I-6	HSS	Ethics and Self Awareness Communication Skills (Basic/Advanced)	Yes	Department core	Referred to B.Tech (CSE & ECE)
	Management	No specific course on cross-cultural or intercultural communication	-	-	
I-7	HSS	Core HSS subjects offered in several semesters. Hardly any on intercultural communication.	Yes	Elective	
	Management	No information found	-	-	

Thombre (2015) who pointed out that education on intercultural communication in India is left to the business schools. The findings also corroborate what Piller (2007) said, "Some of the most widely read textbooks in Intercultural Communication have their disciplinary bases in Business Studies, Communication Studies, Management Studies and Psychology" (pp. 215-216), so much so, that "it has even been started to be noticed in these disciplines themselves" (p. 216). There is hardly any attention paid to the role of natural languages and the nonverbal messages in the process of intercultural communication. Consider the case of Indian expatriates in the study by Shah & Barker (2017). The respondents reported difficulty in understanding the "unwritten" socio-cultural communication rules in Australia. So, even though they may be fluent in the host language, if the socio-cultural rules and norms, the communication style, the accent or the use of slang, and cultural values are not fully understood,

they may lead to conflicts and misunderstandings. When IC education is based in such disciplines as above, much of the focus is on improving some of the cognitive skills like oral and written communication skills and the visible, behavioral factors like teaching how to greet, how to organize, and how to handle multicultural teams. The individual human traits, and the invisible and often mediating affective factors like their prejudices, their willingness/non-willingness, and their fears, impeding effective communication, remain neglected. As such, ICC Education covering all three dimensions (Cognitive, Affective and Behavioral) needs to be introduced as a separate, comprehensive, and compulsory course to all those students who are going to be a part of a culturally diverse industry. Lack of such courses on ICC not only adds to students' communication dissatisfaction at the workplace but also stresses them so much so that they perceive themselves to be less competent than others. On part of the universities, additional/elective courses



are being introduced to address such issues, but they are limited to only a few. For instance, IIT Bombay, through its online platform IITBombayX, offers a six-week course on 'Soft Skills and Workplace Communication' under its 'IITBombayX-LAKSHYA programme', to help final year students "prepare for the corporate world, and perform better in the recruitment process" (IITBombayX, 2018). The course covers areas like verbal and non verbal skills, business ethics, corporate culture, global and cultural awareness, and workplace diversity. The very need to introduce such a separate course further strengthens our argument that the current UG communication courses are not able to fully prepare students for the cultural diversity at workplace.

A Media Aided Teaching and Learning

Till now, we argued that education on intercultural communication shall be made a compulsory part of the undergraduate engineering education, but one may ask 'How'? When time constraints or university rules and regulations do not allow teachers to go an extra mile and design a new course, it is time to harness the benefits of technology. With technology and media, learning and teaching no longer are confined within the boundaries of the classrooms. The National Program for Technology Enhanced Learning (NPTEL) by the Government of India is a fitting example. It is an initiative by the seven Indian Institutes of Technology and the Indian Institute of Science (IISc) for creating course contents in engineering and science (NPTEL, 2017). It offers online courses which are free for all, the only requirement being "Interest and enthusiasm to learn" (NPTEL, 2018). Particularly addressing the need for intercultural communication competence, NPTEL offers a course, titled International Business Communication which covers lessons on communicative competence, intercultural non verbal communication, barriers to communication, persuasive communication, crisis communication and ethics in business communication. This video course has methodically been prepared lecture and module wise, and the PDF of each lecture is available with slide time and number. It can be downloaded free of cost from the NPTEL website. So, a student can visit the website, download course handout, watch videos, and learn by self. The teachers may use these lectures to learn and to teach in class. Else, they may simply ask their students to go through these lectures, which, if followed by group discussed in class, may help

students acquire necessary skills for intercultural business communication.

6. Conclusion

The review brought out a few significant findings. First, communication courses offered today are barely addressing the issues of intercultural incompetence. The main focus is mostly on improving proficiency in English, which is one of the major issues in Indian IT industry, but certain not the only one. There is a need to include courses which help students cultivate flexibility and develop the right attitude and the right aptitude for communicating effectively and appropriately with different cultures. Second, some of courses do teach to negotiate identities and manage conflicts in multicultural workplaces, but such courses are based in broader course categories like Organizational Management or Human Resource Management, which are being offered by the department of Management. When IC education is based in such disciplines, many of the affective factors remain ignored. There is a need to introduce separate and comprehensive courses on ICC by the Department of HSS which addresses issues from the human and linguistic perspectives because, "linguistic misunderstandings are often mistaken for cultural misunderstandings" (Piller, 2007, p. 218). Finally, it is expected that the universities introduce sector specific intercultural communication skills in their communication studies to accommodate current industry requirements. Where teachers have the autonomy to design their courses, it is expected that before designing any course on ICC, they thoroughly study the industry and its requirements. These measures, if taken seriously, can help overcome issues of intercultural incompetence and poor communication skills.

The study has a few limitations. The authors referred only to the publicly available resources on the websites of these universities. As such, the classification is subjective and based solely on secondary sources of information like course summary, course structure, courses of study, and hand-outs available on the universities' websites. Due to time and financial constraints, other sources of information such as instructors' opinion or students' feedback were not incorporated in the study. Future studies in the field may go for a comprehensive analysis by triangulating data collected from primary as well as secondary resources.

Nevertheless, the current study does give a glimpse of the current situation: The field has got some recognition in India; however, its inclusion as a compulsory part of the engineering course curriculum is negligible at present. Considering mass mobilization and virtual migration, resulting in the ever increasing need for culturally competent workforce, it is time to introduce courses on the nuances of workplace cultural diversity, verbal and non verbal communication in intercultural work groups, the dangers of stereotyping, the possible conflicts in multicultural teams, negotiation techniques, and other allied aspects of ICC to ensure that we truly prepare students for the culturally diverse work environment which awaits them in reality.

References

- [1] Aneesh, A. (2000). Rethinking migration: highskilled labor flows from India to the United States. Working Paper 18. The Center for Comparative Immigration Studies, University of California, San Diego. Retrieved on 6 May 2018 from:https://ccis.ucsd.edu/_files/wp18.pdf
- [2] Azam, M., Chin A., & Prakash, N. (2013). The Returns to English-Language Skills in India, Economic Development and Cultural Change, 61(2): 335-367. Retrieved on 16 Feb 2015 from: http://ftp.iza.org/dp4802.pdf
- [3] Bhardwaj R. (2016, September 16). Need for Workplace Diversity: Challenges in Indian Organisations. India Today. New Delhi. Retrieved on 4 May 2018 from: https://www.indiatoday.in/education-today/featurephilia/story/workplace-diversity-and-challenges-in-india-342395-2016-09-21
- [4] British Council (2015). English Skills for Employability (ESfE) Think Tank. A British Council and National Skills Development Agency Initiative. Retrieved on 19-12-2017 from https://www.britishcouncil.in/sites/default/files/esfe report low res.pdf
- [5] Hoy, S. (2017). Japan Penis Festival: Religious and Political History Behind the Now Notorious Event (Published: 5 April 2017 12:01 BST). Retrieved on 16-12-2017 from: h t t p://www.independent.

- co.uk/travel/asia/japan-penis-festival-shintohistory-religious-event-politics-hen-dokanamara-matsuri-kawasaki-daishia7667611.html
- [6] IBEF (2016). India Brand Equity Foundation. Retrieved on 01-12-2016, from:
- [7] IITBombayX (2018). Soft Skills and Workplace Communication. IITBombayX. Retrieved on 09-05-2018 from https://iitbombayx.in/courses/soft-skills-and-workplace-communication
- [8] Hunt, V., Layton, D., & Prince, S. (2015). Diversity Matters. McKinsey & Company, 1, 15-29.
- [9] NIRF (2017). National Institutional Ranking Framework. Ministry of Human Resource Development, Government of India. Retrieved on 20-11-2017 from https://www.nirfindia.org/flipbook/2017/index.html#p=30
- [10] NPTEL(2017). National Program for Technology Enhanced Learning. A joint venture by IISc and IITs, funded by MHRD, Govt. of India. Retrieved on 6-01-2018 from http://nptel.ac.in/faq.php
- [11] Piller, I. (2007). Linguistics and Intercultural Communication. Language and Linguistic Compass 1(3): 208–226
- [12] P'Rayan, A. (2008). Engineering English: A Critical Evaluation. Ph.D. Dissertation, Annamalai University, India, Language in India, 11(12): 10–283.
- [13] Rao, R. N., & Thombre, A. (2015). Intercultural communication: the Indian context. SAGE Publications India.
- [14] Sasidharan, P. (2012). A Needs-Based Approach to Teaching and Learning of English for Engineering Purposes. Ph.D. Dissertation, National Institute of Technology, Rourkela, Orissa, India. Retrieved on 20 Mar 2015 from:
- [15] http://ethesis.nitrkl.ac.in/4429/1/Priya_S_ 50713001.pdf

- [16] Shah, D., & Barker, M. (2017). Cracking the cultural code: Indian IT expatriates' intercultural communication challenges in Australia. International Journal of Cross Cultural Management, 1470595817706383.
- [17] Upadhya, C. & Vasavi, A.R. (2006). Work, Culture, & Sociality in the Indian IT Industry: A

Sociological Study. School of Social Sciences, National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore India. Retrieved on 2-5-2018 fromhttp://eprints.nias.res.in/107/2/idpadfinalreport.pdf