

# The Study about Communication Skill: A Prerequisite for Engineers

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## Abstract

In present scenario communication skill play a significant role in all sectors. Communication skill are a platform for convey a messages from a human to another human in different countries. In corporate sector it place is very important. As a professional a student should be ready and make good his communication skills. Chalk and talk is still the dominant approach in education, especially for numerical subjects. The main objective of this paper is to develop significant communication and qualified assistances by with English as a medium and a sympathetic of moderator in influencing the impending of the students. In addition to their skills in technical skills they should also be well versed in communication skills, in which schools and universities can play a vital role in student's life so as to interact with technical skills as well as communication skills to shape the future. In future, use this paper to assess the role and relevance of communication in future on the current state of the technological world and the need of a student to maintain their talent while competing with the world along with two arms like technical skills will be done.

**Keywords:** communication, education, professional importance, problem-based learning, skill development

## 1. Introduction

Education is widely accepted as one of the most important tools for promoting sustainable development; the necessary change in people's thinking, beliefs and actions has led to an effort to make environmental issues a fundamental focus of all education. For many years, the working engineer has been portrayed as a cliché among the general public. This is a man who sits in front of his computer for ten hours straight, making weird graphs and computations. However, when a discussion ensues, he says that he has a lot of work to do and tries to escape as quickly as possible. This image may be overdue, but this is how the media and television portray the situation (V. Anand 2019). Globalization has a direct impact on industrial needs; a worldwide engineer should be able to jump state and traditional barriers with ease. This has a direct impact on engineering education.

Professional engineers will undoubtedly need effective and exceptional communication abilities in this position. Universities are expected to directly meet industry requirements and produce global engineers who are proficient not only in technical capabilities but also in non-technical skills such as communication skills. Many university engineering schools have failed to meet the requirement of introducing such courses. Due to their weak communication skills and lack of confidence, many engineering graduates in India are reported to be unemployed. Several research studies have emphasized the need to enhance employability skills of engineering graduates, yet the problem of weak communication skills is plaguing India ( Julfiqar, N. Huda, and A. Pant 2019).

Several countries have conducted research in recent years to assess the technical and personal skills that today's business requires of engineers. Today's engineering graduates should have strong communication and collaboration abilities, yet they do not. They need to consider a broader picture of events affecting their careers, such as social, environmental and economic issues, but they haven't. In the end, they graduate with a thorough understanding of core engineering sciences and computer literacy, but have no idea how to use that knowledge in the real world ( S. G. Lal, K. Chithra, and V. Nageshwar 2019).

Studies have focused on the importance of assertive communication and social interaction in the teaching and learning process in engineering classrooms. Much attention has been paid to the importance of classroom discourse in helping student's communication development (N. Sharma, S. K. Jain, P. K. Singh, and R. Garg 2017) in the education reform movement. Engineering, as a result of the improved literature's emphasis on communication, it is important for teacher educators to be aware of teacher's concepts of communication as a medium to develop a learner's understanding, and to understand how they help students. How communication can help develop patterns that promote growth. Instructors should help students improve their communication skills by allowing them to study ideas, increase their understanding of these things, and make connections in and out of ideas. Various forms of communication, both oral and written, that allow learners to connect with peers and instructors in the development of better engineering knowledge are now at the heart of these interests.

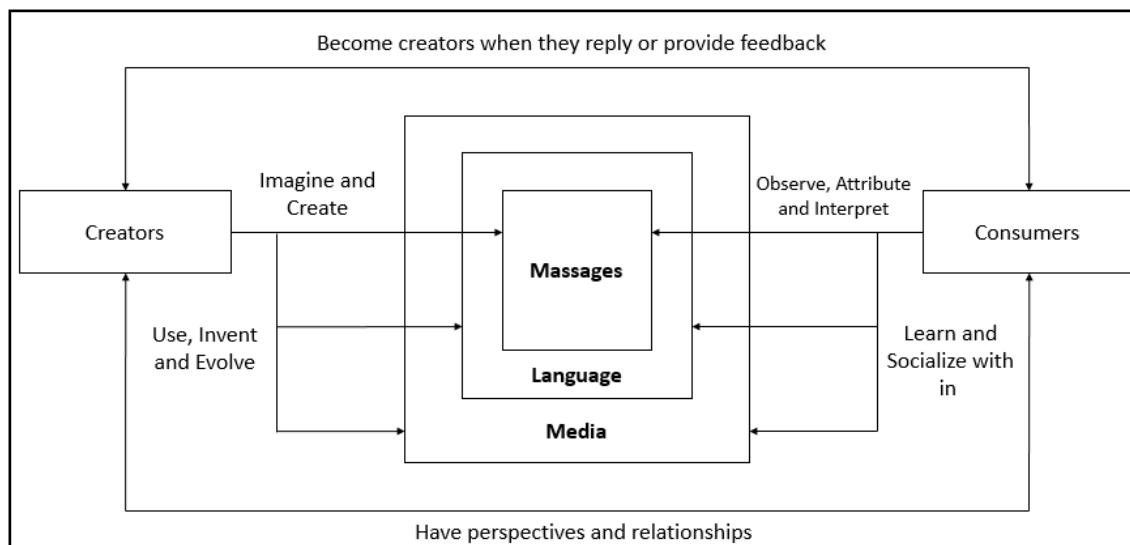


Figure 1. This Figure Shows the Ecological Model of the Communication Process

According to the Figure 1, it shows an ecological model of communication (D. Foulger 2005) that seeks to provide a platform for the investigation of these topics. It asserts that communication occurs when four key components come together: communication between individuals (producers and consumers) is mediated by messages created using language inside the media, taken from the media, and language understood using. In many ways, this model is a more thorough version of the standard framework of communication research: 'Who says what' into 'which channel, to what effect.' 'Who' are the message producers, 'What to say' are the messages, 'Which channel' is broad in the languages it means which channels present the content and media (which channels are part of), 'Who' are the message consumers, and influences are found in many relationships among primitives, including relations, attitudes, properties, interpretations, and the continued development of speech communication.

### 1.1 Skilful Functional Communication

Successful communication is a difficult task that requires mastery of a variety of skills and information. To begin, people must understand the linguistic or grammatical principles that allow them to construct and interpret sentences in a certain language. Linguists and psychologists are particularly interested in how humans develop and process grammatical sentences, so linguistic competence is the term used to describe this type of knowledge.

Skilful Functional Communication (K. Roscoe and I. and Madoc-Jones 2008), effective communicators must understand the social rules that govern how language should be used in different contexts and groups of people. Sociological competence is defined as the ability to use and interpret phrases in a socially appropriate or appropriate manner established by the rules of a relevant community or group. Sociologists and anthropologists are the ones who study this type of ability the most, as they try to find out what are the standards for proper speaking in diverse societies.

Third, good communicators must be able to formulate and digest communication in such a way that they can achieve their personal and social objectives quickly and effectively. Skilled communicators must be able to create messages that clearly inform, explain and calm people. Skilled communicators must be able to recognize subtleties in the

communication of others, as well as read between the lines to extract meaning, both intended and unintentional. Functional or rhetorical ability refers to the ability to create communication and interpret messages from others that help you achieve your objectives. This type of ability is primarily investigated by communication scholars, and it is the type of competence addressed in this chapter. The Functional communication competence (R. Handa, M. Sunil, C. Gupta, A. Raina, T. Khan, and A. Gulzar 2018) requires more than just the ability to develop messages that effectively meet individual goals. Successful functional communication requires the ability to learn about a variety of communication processes, including reading people and social situations, social perception, message production, and receiving and processing the messages of others.

In multinational engineering projects, English will act as a linguistic bridge. Learning English is not the only benefit of multilingualism for the global engineer. While multi-lingualism in engineering programs is progressively emphasizing provincial communication assistances, studying the primary lingoes of a country's county is just as imperative as scholarship English. Globalization has a direct impact on industrial wants; a international engineer requirement be able to annoyed general and traditional restrictions with ease. Multilingualism has become increasingly important as the world is divided into regional networks. English is often considered the most spoken language on the planet. This has a direct impact on the studies of engineering students. For communication, a normal encryption is necessary. Educational institutions that meet the criteria for the new global engineer's language will be ready for the next millennium. Inadequate communication skills in engineering education have the effect of weakening the overall profile of the teaching professional engineer. This has an impact on the recruitment and retention of engineering students (C. S. Ramos Meza 2021).

The roles of engineers in society are evolving, placing new constraints and expectations on engineering faculties in universities around the world. Engineering education needs a comprehensive approach to make graduates capable of leading the engineering profession to face the increasing constraints and difficulties due to the expanded duties of an engineer. Engineers are expected to work in both technical and non-technical capacities. Good English communication abilities are an essential feature of an engineer's career, and a lack of such skills only damages an engineer's image, as one famous author points out (X. Cheng and L. J. Zhang 2021).

One of the most common reasons engineering students fail to interview is a lack of efficient communication with their potential employers. Many final year students lack self-assurance as they prepare for their campus placements. Being a good communicator doesn't end there when you've got a job. In addition to his technical abilities, he must be excellent in human communication to deal with circadian activities. Only 20% of the time is spent on actual engineering, while the other 80% is spent writing and communicating with colleagues and superiors. Employers are looking for more than just technical talent. The job requires people to work creatively with others. Employers nowadays are not looking for engineering geeks who will spend their entire working day in the office with engineering calculators. Even if you are the best engineer, if you are unable to convey your thoughts and ideas to others, no one will notice you (H. Bussell 2021). Three areas of weakness have been found that can have a substantial impact on an engineer's communication skills education:

- Communication approach among students.
- Inadequate course material.
- Inadequate or ineffective teaching techniques.

Another important factor was the lack of opportunities for engineering students to develop their communication abilities, especially their verbal communication skills. Another requirement of technical communication is writing ability, which is defined as the capability to engrave effectually in a variety of situations and in upright English using memos, gossips, despatches, profession comparisons, operative guidebooks, electronic mail to various audiences and for purposes. E-mail letter, telegram, fax, contract, advertisement, brochure, or news release.

Reports typically account for only 75% of an engineer's total writing time, yet they are the most commonly used tool for job advancement. There is a widespread misconception that reports are long documents with difficult and specialized jargon that only the most experienced engineers can understand. On the other hand, in Figure 2, state that the all beneficial points which are responsible for create an effective communications (P. S. Matreja, J. Kaur, and L. Yadav 2021). Most reports are prepared for those who are not familiar with engineering, and the purpose of an engineer is to express his designs undoubtedly abundant that the somebody who reads it understands what the engineer has written. Employers need individuals with strong writing abilities for a number of reasons.

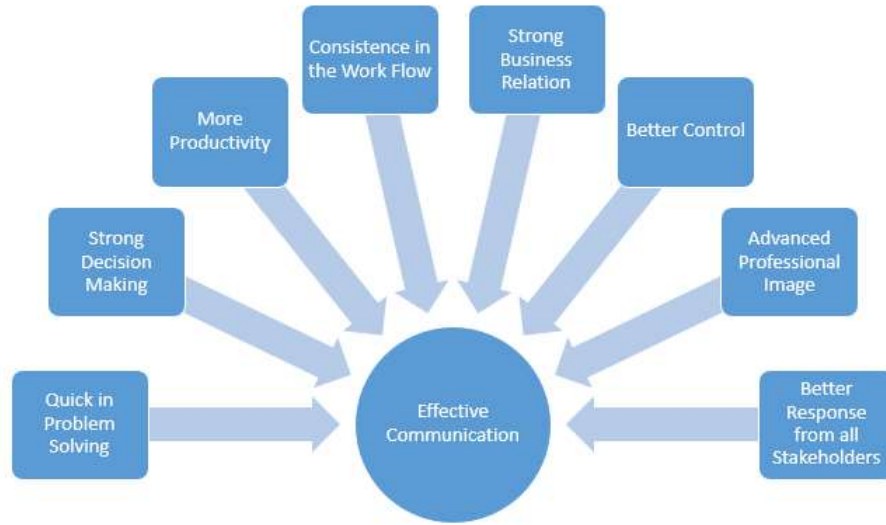


Figure 2. This Figure Shows About Some Points For Create Effective Communication

1.2 Message Production Skill Communication

The progression of creating unwritten and nonverbal behaviour to elicit a preferred comeback from the people to whom they are addressed is known as message formation. Individuals can more easily and successfully achieve many personal and social goals if the message generation process is successful. Message production is a complex process, and there are many different message production abilities, as are many different social perception skills. I'm only interested in one broad message-building skill: the ability to create highly personalized messages (M. Plenковиć and D. Mustić 2020).

Some of our communication efforts are focused on carrying out normal, everyday activities (saying hello to an acquaintance, asking or answering direct questions about the time or weather, etc.). Author usually don't pay much attention to the particular qualities of the person or audience with whom we engage when communicating to carry out these easy, repetitive activities. Instead, we can use traditional, scripted message formats that are appropriate for the situation.

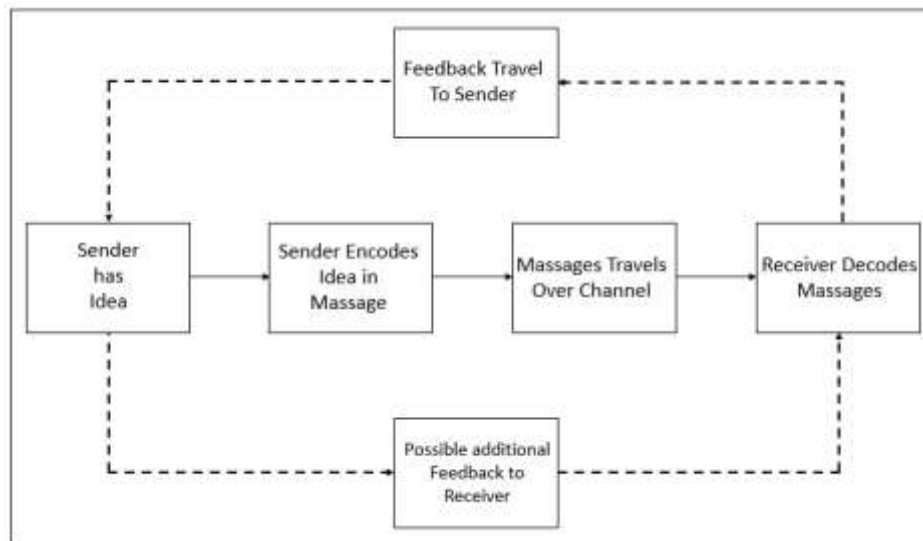


Figure 3. This Figure Show That Message Production Skill

In many other cases, however, achieving human communication objectives requires message production skill, which is mention in Figure 3 for creating messages (J. O. Greene 2016) that demonstrate the psychological qualities of our

unique target audience as well as knowledge of and adaptation to elements of a specific social setting. comforting someone who is upset by a recent loss, disciplining an employee for rule violations, persuading a romantic partner to accept our views about future joint work, jokes and Entertaining a family gathering with stories, or explaining how a machine or drug works to someone with no background, are all fairly complex communicative tasks that require, among other things, those of us. Consider carefully the goals, traits, feelings, knowledge, and desires with which we are communicating.

1.3 Social Perception Communication Skill

The mental process of seeing, recognizing and understanding objects in the world is known as perception. Perception is a process that requires active participation. That is, the author does not acquire knowledge about the ecosphere passively, and the environment does not immediately enforce himself on our minds and mind. Relatively, the author vigorously understands the world: the author selectively directs our attention to specific aspects of the world at any given time; The author classifies things that the author notices in terms of mental categories that the author has acquired; The author obtains information about similar experiences from memory and looks at current experiences in the context of those memories; and the author infers about the nature of the present experience, its causes and consequences; And the author speculates about the nature of the present experience. Figure 4 shows the model of social perception communication skill and these mental operations are quite real and utterly important they keep us connected to the world, even though the author is hardly aware of them (N. T. T. Van 2020).

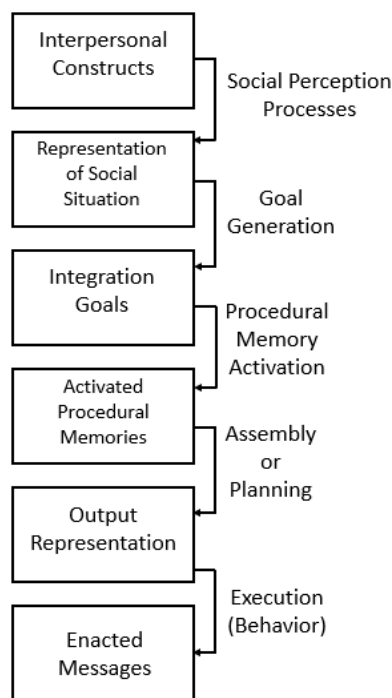


Figure 4. This Figure Shows the Model of Social Perception Communication Skill

The process by which an author makes sagacity of the anthropoid or social world, counting our own practices, other individuals, social interactions, and social establishments, is called social perception. Other people's behaviours and traits are very important in most social situations, and we spend a lot of our mental energy and attention on them (T. Hussian, M. Choudhary, V. Budhwar, and G. Saini 2021). The author seeks answers to a variety of inquiries about individuals in the human environment, including who they are, how they relate to us, what kind of condition they are in, what they are undertaking, their purposes and purposes, and their particular Features.

Because individuals rely on their communicative behaviour over their perceptions about the actions, traits, roles, intentions, and dispositions of others (as described in earlier sections of this chapter), social perception is particularly important for communication. Is. In other words, your thoughts about people outline your own communication behaviour towards them as well as your interpretation of others' communication efforts.

Many diverse social perception processes have been investigated, including influencing recognition and recognition of the emotional states of others, assigning reasons for another's behaviour, and nonverbal decoding, which

determines the meaning of nonverbal behavior. Incorporating data and putting together differing knowledge about others to create a cumulative effect. Integrating identifying and matching potentially conflicting information about others, as well as generating impressions by combining different information about people into a single overall impression. These are all input-oriented cognitive operations that the author uses to describe and understand social situations as well as the characteristics, thoughts, and behaviours of other people.

## 2. Literature Review

According to A. Nayak. (A. Nayak and M. T. Nayak 2016) there are many broad, deep and basic definitions of etymological and language is "a assemblage of condemnations, each of fixed measurement and assembled from a predetermined set of components." According to the dictionary, language is described as a system of traditional spoken or written symbols used by individuals in a common culture to communicate with each other. A language reflects and influences the way a culture thinks. Language, on the other hand, is defined by the Oxford Dictionary as "the means of human communication, either spoken or written, consisting of the organized and traditional use of words." The core of the language remains the same, whether by Chomsky's definition or more contemporary. Language is made up of rules and elements, and can be spoken or written. It represents the culture and way of thinking of the speakers, and is widely used to transmit ideas.

According to another author, R Sharma. (R. Sharma, P. K. Garg, and R. K. Dwivedi 2017) many meanings differ depending on the position in which the speaker is speaking. In the context of major studies, it can refer to literary works such as fiction or literature. Literature, as it relates to literary writing, can be described as works of aesthetic and moral quality, such as those found in canon or great tradition, or as innovative and inventive writing. R. Sharma defines literature as writings of superior or lasting creative value that reflect concepts of lasting or universal importance. Oxford defines literature as written works, especially those deemed to be of superior or enduring artistic merit. Some of the qualities associated with literature are sublime, artistic, creative, inventive, expressive, valuable and universal. As a result, a tool language is essentially necessary to present its properties and entity. It becomes the only option and the only way out.

## 3. Discussion

In this training the quality of announcement abilities in communicating material or measured issues complete inscription was evaluated. Written announcement is more complex than simply conveying the author's ideas to the reader's mind. Writers and readers have different perspectives on the problems being covered, which will affect the formulation and interpretation of the article. This investigation can lead to a variety of interpretations. Students' math communication skills are divided by researchers into two categories: moderate and poor. This can vary from how students feel and what they express in their paper.

The findings also showed that guided search learning had an effect on students' math communication abilities. Other studies have found that students' past knowledge has little effect on their ability to communicate mathematically. The interaction of these two elements has little effect on the mathematical communication abilities of the students. Since Graduated Driver Licensing (GDL) has a more dominant effect on mathematics than conventional teaching, this study is expected to explore the impact of guide encounter scholarship on student's calculated announcement abilities. This was demonstrated by increased classroom participation and a favourable insolence near calculation, as well as upgraded scholarship conclusions. However, the findings of this study revealed how much knowledge the students had about the information given. Students should convey through their written communication given through their exam answer sheets what they know and what not.

## 4. Conclusion

According to constructivism, people actively interpret their experiences and these interpretations have a significant impact on their behaviour. The complexity of people's explanatory plans or constructions varies, and these disparities in cognitive complexity have important implications for social perception, communication construction, and reception abilities. People with a greater degree of relational intellectual complexity generally have better community awareness and communiqué abilities, although the affiliation between cognitive complication and particular assistances can be complex. Researchers have discovered much about the factors that influence the development of cognitive complexity and related communication abilities in children. Unfortunately, little is known about how individuals can increase their cognitive complexity and communication abilities in a consistent manner. Much study is needed on communication skills training; perhaps some of you will contribute to this area in the future.

## References

Anand, V. (2019). Photovoltaic actuated induction motor for driving electric vehicle. *International Journal of Published by Sciedu Press*

- Engineering and Advanced Technology*, 8(6S3), 1612-1614. <https://doi.org/10.35940/ijeat.F1298.0986S319>
- Bussell, H. (2021). *Evidence-based library and information practice. Evidence Based Library and Information Practice*. <https://doi.org/10.18438/eblip29886>
- Cheng, X., & Zhang, L. J. (2021). Teacher written feedback on English as a foreign language learners' writing: Examining native and nonnative English-speaking teachers' practices in feedback provision. *Frontiers in Psychology*, 12, 629921. <https://doi.org/10.3389/fpsyg.2021.629921>
- Foulger, D. (2005). *Int. Commun. Assoc. An ecological model of the communication process Proc, 2005*.
- Greene, J. O. (2016). "Oral communication skills," in *Verbal Communication*.
- Handa, R., Sunil, M., Gupta, C., Raina, A., Khan, T., & Gulzar, A. (2018). Efficacy of ultrasound massage therapy as an adjuvant pain control modality in TMDs: A clinical study. *Journal of Indian Academy of Oral Medicine and Radiology*. [https://doi.org/10.4103/jiaomr.jiaomr\\_5\\_18](https://doi.org/10.4103/jiaomr.jiaomr_5_18)
- Hussian, T., Choudhary, M., Budhwar, V., & Saini, G. (2021). COVID-19 pandemic: An era of myths and misleading advertisements. *Generic Med. Bus.*, 17(2), 49-54. <https://doi.org/10.1177/1741134320988324>
- Julfiqar, N., Huda, N., & Pant, A. (2019). Paediatric conjoint bicondylar Hoffa fracture with patellar tendon injury: An unusual pattern of injury. *Chinese Journal of Traumatology (English Ed.)*, 22(4), 246-248. <https://doi.org/10.1016/j.cjtee.2018.08.008>
- Roscoe, K. I., & Madoc, J. (2008). *Critical social work: A narrative approach Int. J. Narrat. Pract.*
- Lal, S. G., Chithra, K., & Nageshwar, V. (2019). Is dietary management is essential for gallbladder diseases? A review based on available literature. *Indian Journal of Public Health Research and Development*, 10(2). <https://doi.org/10.5958/0976-5506.2019.00251.1>
- Nayak, A., & Nayak, M. T. (2016). Oral squamous papilloma occurring on the palate with review of literature. *Journal of Experimental Therapeutics and Oncology*, 11(4), 319-324.
- Plenković, M., & Mustić, D. (2020). 'Media communication and cultural hybridization of digital society,' *Media, Cult. Media, Culture and Public Relations*, 11(2), 151-160. <https://doi.org/10.32914/mcpr.11.2.3>
- Ramos Meza, C. S., Bashir, S., Jain, V., Aziz, S., Raza Shah, S. A., Shabbir, M. S., & Agustin, D. (2021). The economic consequences of the loan guarantees and Firm's performance: A moderate role of corporate social responsibility. *Global Business Review*. <https://doi.org/10.1177/09721509211039674>
- Sharma, N., Jain, S. K., Singh, P. K., & Garg, R. (2017). A morphometric study of predictors for sexual dimorphism of cervical part of vertebral column in human fetuses. *Journal of the Anatomical Society of India*, 66(2), 135-139. <https://doi.org/10.1016/j.jasi.2017.12.004>
- Sharma, R., Garg, P. K., & Dwivedi, R. K. (2017). *A literature survey for fuzzy based soft classification techniques and uncertainty estimation*. <https://doi.org/10.1109/SYSMART.2016.7894493>.
- Singh Matreja, P. S., Kaur, J., & Yadav, L. (2021). Acceptability of the use of crossword puzzles as an assessment method in pharmacology. *Journal of Advances in Medical Education and Professionalism*, 9(3), 154-159. <https://doi.org/10.30476/jamp.2021.90517.1413>
- Van, N. T. T., Vrana, V., Duy, N. T., Minh, D. X. H., Dzung, P. T., Mondal, S. R., & Das, S. (2020). The Role of Human-Machine Interactive Devices for Post-COVID-19 Innovative Sustainable Tourism in Ho Chi Minh City, Vietnam. *Sustainability*, 12(22). <https://doi.org/10.3390/su12229523>

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