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Exploring the Attitude and Usage of Online Chat Platforms Among College Students

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Abstract: This study aims to examine the attitude towards Internet chatting and its impact on the educational development of college students in Greater Noida District, Uttar Pradesh. The researchers employed a normative survey method for the study. A sample of 200 college students was selected from two Arts and Science colleges and two Engineering colleges in Greater Noida District, using the stratified random sampling technique. A custom-developed tool was used to assess students' attitudes towards Internet chatting and its influence on educational progress. The data was analyzed using the 't' test and χ^2 -test. The findings suggest that college students in Greater Noida District exhibit a positive attitude towards Internet chatting in relation to their educational development. Additionally, their attitudes varied based on the locality of the college.

Keywords: Internet Chatting, Educational Development, Internet Chatting Attitude Scale (Icas).

I. INTRODUCTION

The use of information and communication technology (ICT) in the classroom is the most notable innovation in the field of education.

The expansion of the "Internet" is among the most important technological advancements. The internet has become so widespread that it now affects practically every part of people's lives, whether they are at work, home, or playing. The world has radically transformed as a result of the Internet. It has changed how we interact with one another, work, play, and perceive the environment. People now have a quick, practical, and dependable way to send and receive information thanks to the Internet's growth as a digital highway for messages and images. These days, a lot of people utilize it as a research tool for news, education, entertainment, and unofficial online learning. Students in college are heavy users of the Internet to the populace at large. The Internet was first widely used on college campuses in the 1990s, and it is mostly a direct result of research conducted at universities. College students use the Internet on a regular basis, in part since they were raised with computers. It has become a commonplace technology, much like the telephone or television, and is ingrained in their everyday communication practices. Chatting is a crucial component of students' academic and educational growth among Internet applications. Internet chat is being widely used by students to improve their education. One essential component of college students' educational experiences is using the internet. They conduct research, use library resources, and interact with instructors and fellow students via the Internet. This study's foundation is a survey designed to find out how college students feel about Internet chatting in relation to their academic progress.

II. NEED FOR THE STUDY

The Internet is one of the tools for increased information brought about by global technology, and it has evolved into the best way to provide high-quality education and advancement for businesses today as well as for educational institutions that create projects to upgrade in order to bring the most learning communities. Because they enhance the growth of learning, this technology resource for education is powerful. The Internet offers a wealth of educational advantages, such as improving communication with teachers and classmates, creating educational connections, and providing access to knowledge on a wide range of subjects. For students, it offers important resources like research materials, entertainment, and a way to connect with friends and family.

Internet chat can be used to obtain the majority of these services. Students' school-based education can be enhanced via online chats, which can also serve as a platform for collaborative and creative work. This method is quick and effective for learning new things. Chatting online offers opportunity to share questions, concerns, and experiences regarding educational researches with foreign scholars. But some research indicates that excessive Internet use is linked to academic issues (Robert et al., 2001; Kimberly Young, 1999). There are benefits and drawbacks to online chat, as well as implications for education. College students will use Internet chat in positive ways if they have the proper mindset about it.

Understanding the significance of cultivating a positive attitude toward online chat, the researchers tried to find out how college students felt about online chats in relation to their academic growth. Internet chat can be used to obtain the majority of these services. Students' school-based education can be enhanced via online chats, which can also serve as a platform for collaborative and creative work. This method is quick and effective for learning new things. Chatting online offers opportunity to share questions, concerns, and experiences regarding educational researches with foreign scholars. But some research indicates that excessive Internet use is linked to academic issues (Robert et al., 2001; Kimberly Young, 1999). There are benefits and drawbacks to online chat, as well as implications for education. College students will use Internet chat in positive ways if they have the proper mindset about it. Understanding the significance of cultivating a positive attitude toward online chat, the researchers tried to find out how college students felt about online chats in relation to their academic growth.

III. OPERATIONAL DEFINITIONS

A. Attitude:-

In this study, attitude refers to an individual's overall perception, feelings, and predispositions toward online chat platforms. It includes both positive and negative perspectives, influenced by personal experiences, social interactions, ease of access, and security concerns. Factors such as user interface design, responsiveness, privacy, and the effectiveness of communication contribute to shaping attitudes. A positive attitude may lead to increased adoption and engagement, while a negative attitude could result in reluctance or avoidance.

B. Internet Chatting:-

Internet chatting is defined as real-time communication through digital platforms, allowing users to send text, audio, video, and multimedia messages. It encompasses both one-on-one interactions and group discussions facilitated by platforms such as WhatsApp, Telegram, Messenger, Discord, and Microsoft Teams. The mode of communication varies based on user preferences, with features like instant messaging, video calls, voice notes, and chatbots enhancing engagement. The widespread acceptance of internet chatting is driven by its convenience, accessibility, and ability to support remote communication for personal, academic, and professional purposes.

C. Educational Development:-

Educational development refers to the continuous process of enhancing students' academic growth, knowledge acquisition, and cognitive skills. Online chat platforms contribute to educational development by fostering collaborative learning, peer-to-peer discussions, and knowledge-sharing. These platforms are widely used for group study sessions, academic consultations, project coordination, online tutoring, and research discussions. The integration of features like file sharing, discussion forums, and AI-driven assistance has transformed traditional learning methods, making education more interactive and flexible.

D. College Students:-

In this study, college students refer to individuals pursuing higher education in universities, colleges, or institutes, typically aged 17 years and above. This group represents a diverse demographic with varying levels of technological proficiency, social media engagement, and academic requirements. College students frequently use online chat platforms for academic, social, and recreational purposes, balancing personal, educational, and professional interactions. Their usage patterns, preferences, and attitudes toward these platforms influence how they integrate technology into their daily lives.

E. Online Chat Platforms:-

Online chat platforms refer to digital applications and software that enable instant messaging, voice/video communication, and collaborative discussions. These platforms can be categorized into:

- 1) Social chat apps (e.g., WhatsApp, Instagram, Facebook Messenger) – Primarily used for personal communication.
- 2) Academic and professional chat platforms (e.g., Microsoft Teams, Slack, Google Chat, Discord) – Used for educational discussions, teamwork, and workplace collaboration.
- 3) Public forums and discussion-based platforms (e.g., Reddit, Quora, Telegram groups) – Used for information exchange and broader community discussions.

The usability and effectiveness of these platforms depend on factors like interface design, accessibility, security features, and the ability to support multimedia communication.

IV. OBJECTIVES OF THE STUDY

The present study aims to explore the attitudes of college students toward internet chatting and its impact on their educational development. The study seeks to analyze various factors influencing students' perceptions and engagement with online chat platforms in an academic context. The key objectives of the study are as follows:

- 1) To examine the attitude of college students towards the use of internet chatting as a tool for educational development, including its role in communication, collaboration, and knowledge-sharing.
- 2) To determine whether There are notable variations in the pupils' attitudes towards internet chatting in education based on:
 - Gender – To assess whether male and female students perceive and utilize internet chatting differently for academic purposes.
 - Locality – To explore how students from urban and rural areas differ in their access to and engagement with online chat platforms for educational activities.
 - Type of College – To analyze whether students from arts, science, and engineering disciplines have different attitudes toward internet chatting, influenced by their academic requirements and exposure to digital tools.
- 3) To identify significant associations between different student groups based on their perspectives on internet chatting, including:
 - Male and Female Students – Investigating potential gender-based differences in preferences, effectiveness, and challenges related to internet chatting for education
 - Rural and Urban Students – Understanding the role of digital accessibility, infrastructure, and technological awareness in shaping attitudes toward internet chatting.
 - Arts, Science, and Engineering Students – Examining how students from different academic backgrounds differ in their frequency of use, purpose, and effectiveness of online chatting for learning and collaboration.
- 4) To assess the overall impact of internet chatting on students' academic performance and engagement, evaluating whether its use enhances productivity, learning outcomes, and interactive participation or leads to distractions and reduced academic focus.

V. DELIMITATIONS OF THE STUDY

The following are the boundaries of the current study:

Just 200 college students were chosen by the researchers in Greater Noida District of Uttar Pradesh for the study.

- 1) The investigators selected only 4 colleges in Greater Noida District of Uttar Pradesh for the research.
- 2) The research was conducted in 2 Arts and Science colleges and 2 Engineering colleges within the selected district.

VI. MATERIALS AND METHODS

The researchers adopted a normative survey method to examine the attitude of college students toward internet chatting and its impact on educational development. This method was chosen to collect quantitative and qualitative data from a representative sample of students and analyze their perceptions, usage patterns, and the role of online chat platforms in their academic progress.

A structured questionnaire was developed as the primary data collection tool, focusing on various factors such as frequency of usage, purpose of chatting, perceived benefits, challenges, and its overall influence on learning outcomes. The survey was administered to students from different colleges, disciplines, and demographic backgrounds to ensure a comprehensive understanding of their attitudes. Additionally, the collected data was statistically analyzed to identify trends, patterns, and significant differences based on factors like gender, locality, and type of institution. This approach helped in drawing meaningful conclusions about the role of internet chatting in higher education and its potential impact on students' academic engagement and performance.

A. Sample:-

The present study was conducted with a total sample of 200 college students from Greater Noida District of Uttar Pradesh. The sample included students from 2 Arts and Science colleges and 2 Engineering colleges, ensuring representation from different academic backgrounds.

A stratified random sampling technique was employed to select participants, ensuring diversity across key

B. Demographic factors. The stratification was based on:

- Gender (Students, both male and female)
- Locality of the College (Urban and Rural institutions)
- Type of College (Arts and Science vs. Engineering colleges)

To maintain an equal distribution, 50 students were randomly selected from each college, and a total of 200 questionnaires were distributed among them. This method ensured a balanced and representative sample, allowing for a more comprehensive analysis of students' attitudes toward internet chatting and its impact on their educational development.

C. Research Tool: -

To measure the attitude of college students toward internet chatting and its impact on educational development, the investigators developed and validated a specialized assessment tool. Since no pre-existing tool was available for this specific purpose, a new attitude scale was designed, ensuring its reliability and validity. Development of the Tool

The investigators formulated an attitude measurement scale called the Internet Chatting Attitude Scale (ICAS) using Likert's method of summated ratings. The tool was developed through the following structured process:

- 1) Literature Review – A thorough review of existing research on internet usage, online communication, and educational impact was conducted to formulate relevant statements.
- 2) Item Generation – Based on theoretical insights and expert consultations, an initial set of 30 statements was drafted.
- 3) Pilot Study – A preliminary test of the scale was conducted on a small group of students to assess clarity, relevance, and effectiveness.
- 4) Item Refinement – Based on the pilot study results, 8 items were removed, and the final scale consisted of 22 statements arranged in a randomized order for unbiased responses.

Structure of the Tool:-

- Total Items: 22 statements
- Positive Statements: 18 items indicating a favorable attitude toward internet chatting in education.
- Negative Statements: 4 items to balance the scale and prevent response bias.
- Response Format: A Likert scale was used, allowing students to indicate how much they agree or disagree with each statement.
- Reliability and Validity:-
- Reliability: The internal consistency of the scale was determined using Cronbach's Alpha, yielding a high reliability score of 0.825, indicating a strong level of consistency in responses.

Validity: The content validity of the tool was established through expert reviews, and statistical validation was performed using the t- test to ensure that the scale effectively measured students' attitudes toward internet chatting in an educational context.

Table 1 shows how college students' attitudes on online chat differ depending on their (a) gender, (b) location, and (c) kind of college.

Variables	Categories	N	Mean	%	SD	t-value	Level of Significance
Gender	Male	116	74.97	68.2	9.644	1.077	NS
	Female	84	73.29	66.6	11.73		
Locality	Rural	100	75.77	68.9	9.106	2.04	S
	Urban	100	72.76	66.1	11.72		
Type of	Arts&Science	100	74.93	68.1	8.832	0.879	NS
College	Engineering	100	73.6	66.9	12.1		

D. Data Collection:

For the purpose of this study, the investigators personally visited four colleges in the Greater Noida district of Uttar Pradesh to collect data from the respondents. A structured questionnaire-based tool was utilized to gather insights regarding the attitude of college students toward online chatting and its impact on educational development. Procedure:

- 1) Institutional Permission: Prior to data collection, official permission was obtained from the principals and administrative authorities of the selected colleges. The goal and significance of the research were described to
- 2) ensure cooperation.
- 3) Student Participation: The investigators approached students in their respective colleges and provided them with a clear understanding of the study objectives, emphasizing the voluntary nature of participation.
- 4) Distribution of Questionnaires: The questionnaire, comprising 22 structured statements, was distributed to students. The investigators ensured that respondents had sufficient time to complete the survey.
- 5) Confidentiality Assurance: Participants were assured The purpose and significance of the study were explained to and utilized solely for academic research purposes.
- 6) Collection & Verification: Upon completion, the filled questionnaires were collected, reviewed for completeness and accuracy, and compiled for further statistical analysis.

E. Statistical Analysis:-

The data collected from the respondents were analyzed using both descriptive and inferential statistical methods to determine the attitude of college students toward online chatting and its impact on educational development. The following statistical techniques were employed for data interpretation:

1) Descriptive Analysis:

- Mean & Standard Deviation (SD): The average responses and variations in pupils' attitudes were computed to understand overall trends.
- Frequency & Percentage Distribution: Used to summarize students' opinions based on factors such as gender, locality, and type of college.

2) Inferential Analysis:

- t-test: This test was used to determine whether the attitudes of the participants differed statistically significantly college students towards online chatting based on:
 - Gender (Male vs. Female) oLocality (Rural vs. Urban)
 - Type of College (Arts & Science vs. Engineering)
- Chi-Square (χ^2) Test: This test was used to evaluate the association between different categorical variables, such as: oMale and female students' opinions on online chatting.
 - o Rural and urban students' perspectives. o Attitudes of Arts & Science vs. Engineering students. o

3) Data Processing & Software Used:

- The collected responses were coded and analyzed using statistical software like SPSS and MS Excel to ensure accuracy in calculations and graphical representation.
- The findings were then tabulated and interpreted based on significance levels (p-values) to confirm the reliability of results.

F. Analysis of the Data:-

The data collected from college students were analyzed to understand their attitudes toward online chatting and its impact on educational development. The statistical analysis was conducted using t-tests and Chi-Square (χ^2) tests to evaluate differences and associations among different groups. The findings are detailed below.

Hypothesis: Differences in Attitudes Towards Internet Chatting Null Hypothesis (H_0): Based on (a) gender, (b) location, and (c) college type, there are no appreciable differences in college students' attitudes on Internet chatter on educational advancement.

1) Gender-Based Differences:-

- At the 0.05 significance level, the computed t-value (1.007) is less than the table value (1.98).
- Since the calculated value does not exceed the threshold, the null hypothesis (H_0 1a) is accepted.
- This suggests that there isn't a substantial variation in the attitudes of male and female college students toward online chatting and how it affects schooling.

2) Locality-Based Differences

- The table value (1.98) is less than the computed t-value (2.04).
- This leads to the rejection of the null hypothesis (H_0 1b) at the 0.05 level, indicating that a significant difference exists between rural and urban students' attitudes toward online chatting.

G. Findings:-

- 1) Overall Attitude: College students exhibit a positive attitude towards the role of online chat platforms in their educational development. They acknowledge its benefits for communication, collaboration, and knowledge sharing.
- 2) Gender Differences: Male and female students do not significantly differ in terms of their attitude toward online chatting and its impact on education. Both genders perceive it as a useful tool for academic discussions and networking.
- 3) Locality-Based Attitude: Rural students show a more favorable attitude towards online chatting compared to urban students. This suggests that online communication is more impactful for students in rural areas, possibly due to limited offline academic resources.
- 4) Type of College Influence: No significant difference is observed between engineering and arts and science students in how they feel about internet communication for educational purposes. Both groups consider it equally beneficial for academic interactions.

VII. DISCUSSION

According to the current survey, college students have a positive opinion toward online conversation., recognizing its positive impact on their educational process. The findings suggest that both male and female students share a similar perspective on the role of Internet chatting in academic development. This indicates that students, regardless of gender, have equal access to online resources and are utilizing Internet chatting as an effective tool for academic progress.

Furthermore, the study reveals that rural college students demonstrate a more positive attitude towards Internet chatting compared to their urban counterparts. The limited access to high-tech facilities in rural areas makes Internet usage a valuable resource, primarily available in educational institutions and public libraries. As a result, rural students are more inclined to leverage Internet chatting for their academic purposes. On the other hand, urban students, who have easier access to technology at home, may not perceive its significance as strongly, leading to a relatively lower inclination towards utilizing online chat platforms for educational benefits.

The analysis also shows that students from Arts & Science colleges and Engineering colleges do not exhibit a significant difference in their attitudes towards Internet chatting. In the modern educational landscape, students from diverse academic backgrounds actively engage in online discussions to acquire the latest information related to their studies. The increasing reliance on Internet chatting for academic collaboration and research has led to a more uniform perception among students across various disciplines.

Overall, the study concludes that college students, irrespective of gender, locality, or field of study, maintain a positive attitude towards Internet chatting and its role in academic enhancement. For most statements analyzed, a significant association was observed between students' attitudes and their demographic background, further supporting the idea that Internet chatting is perceived as a beneficial tool for learning.

Several key aspects of Internet chatting were identified as highly influential in students' educational experiences. Statements such as "Internet chatting promotes citizen-oriented teaching methods," "Online chat will increase learning effectiveness," "Student researchers converse with other researchers via Internet chat," "Internet chatting offers a chance to exchange questions, concerns, and experiences about educational research with international scholars," and "it permits the fair dissemination of knowledge and the full exercise of citizenship." reflect students' positive perceptions. These insights demonstrate how Internet chatting serves as a crucial medium for knowledge exchange, academic discussions, and research collaborations.

Through the analysis of all 22 statements, the study effectively captures the genuine attitudes of college students toward Internet chatting. The findings reinforce the notion that online chat platforms have become an essential element of modern education, facilitating learning, interaction, and academic growth among students.

- 1) Educational implications: This study carries several educational implications that can enhance the learning experience of college students by integrating Internet chatting as a valuable academic tool.
- 2) Expert Lectures on Internet Chatting for Educational Development – Institutions can organize sessions led by subject matter experts to help students explore the various ways Internet chatting can contribute to their academic growth.

These sessions can focus on effective communication, research collaboration, and knowledge- sharing techniques, ensuring students harness the full potential of Internet chatting for educational purposes.

- 3) Providing Guided Internet Chatting Facilities in Colleges – Colleges can create dedicated spaces where students can engage in Internet chatting under the supervision of teachers. This approach can help them stay focused on academic discussions while minimizing distractions. Such guided environments will encourage students to actively participate in subject-related conversations, problem-solving activities, and collaborative learning, making online interactions more productive.
- 4) Training Students in Effective Internet Chatting – Given that One of the most effective ways to obtain information is through internet chat, thus students should be taught how to use online chat platforms effectively. This training can include techniques for professional online communication, filtering credible information, and participating in meaningful academic discussions. Ensuring students develop digital literacy skills will enable them to maximize the educational benefits of Internet chatting while avoiding misinformation and distractions.

VIII. CONCLUSION

The internet is a revolutionary technology that has changed the world and given its users—especially college students—many advantages. Students gain a lot from it, including access to research, entertainment, and socialization. The majority of these amenities can be obtained via online chat. The majority of people who use the Internet and chat online are college students. They participate in online chats, regardless of their gender or field of study, and it will raise their learning level. They can look into a lot of things that we never would have imagined possible with Internet conversation. It serves as a communication tool for class discussions between teachers and students. An excessive amount of chatter will cause someone to develop an Internet addiction. Giving pupils the right supervision and counselling can help prevent Internet addiction if their attitudes toward Internet chat and their usage are monitored.

REFERENCES

- [1] Anderson, K. 2001. Internet use among college students: an exploratory study, *Journal of American College Health*, 50 (1): 21-27.
- [2] Best, J.W., Khan, J.V. 2006. *Research in Education* (9th ed.), Prentice-Hall of India, New Delhi.
- [3] Gupta, S.P. 2008. *Statistical methods* (37th ed.) Sultan Chand & Sons, New Delhi
- [4] Jones, S., Madden, M. 2002. *The Internet goes to college: How students are living in the future with today's technology*, Pew Internet & American life project Washington, DC.
- [5] Kubey, W.R., Lavin, J.M., and Barrows, R.J. 2001. Internet Use And Collegiate Academic Performance Decrements: Early Findings. *Journal of Communication*, June2001.
- [6] Leung, L. 2001. College student motives for chatting on ICQ. *New Media & Society*, 3 (4): 483-500.
- [7] Odell, P.M., Korgen, K.O. and Schumacher, P. 2000. Internet use among female and male college students. *Cyber Psychology & Behavior*, 3: 855– 862.
- [8] Vera Suguri, Lourdes Matos et al., 2002. Pedagogical Uses of Web-Based Chat: A Pilot Activity in Brazil. *International Journal on Technologies for the Advancement of Knowledge and Learning*, January- March 2002.
- [9] Young, S.K., 1999. Internet Addiction: Symptoms, Evaluation, And Treatment. *Innovations in Clinical Practice* (Vol.17).
- [10] Budiarti R.P.N., Tjahjono A., Hariadi M., Purnomo M.H. Development of IoT for Automated Water Quality Monitoring System; Proceedings of the 2019 International Conference on Computer Science, Information Technology, and Electrical Engineering (ICOMITEE); Jember, Indonesia. 16–17 October 2019; pp. 211–216.
- [11] Daigavane V.V., Gaikwad M.A. Water Quality Monitoring System Based on IOT. [(accessed on 4 January 2023)]; *Adv. Wirel. Mob. Commun.* 2017 10:1107–1116.
- [12] Meyer A.M., Klein C., Fünfroeken E., Kautenburger R., Beck H.P. Real-time monitoring of water quality to identify pollution pathways in small and middle scale rivers. *Sci. Total. Environ.* 2018;651:2323–2333. <https://doi.org/10.1016/j.scitotenv.2018.10.069>
- [13] Chowdury M.S.U., Bin Emran T., Ghosh S., Pathak A., Alam M.M., Absar N., Andersson K., Hossain M.S. IoT Based Real- time River Water Quality Monitoring System. *Procedia Comput. Sci.* 2019;155:161–168. <https://doi.org/10.1016/j.procs.2019.08.025>
- [14] Alkandari A.A., Moein S. Implementation of Monitoring System for Air Quality using Raspberry PI: Experimental Study. *Indones. J. Electr. Eng. Comput. Sci.* 2018;10:43–49. <https://doi.org/10.11591/ijeecs.v10.i1.pp43-49>.
- [15] Encinas C., Ruiz E., Cortez J., Espinoza A. Design and implementation of a distributed IoT system for the monitoring of water quality in aquaculture; Proceedings of the 2017 Wireless Telecommunications Symposium (WTS); Chicago, IL, USA. 26–28 April 2017; pp. 1–7
- [16] Geetha S., Gouthami S. Internet of things enabled real time water quality monitoring system. *Smart Water.* 2016;2:1.
- [17] <https://doi.org/10.1186/s40713-017-0005-y>. [DOI] [Google Scholar]
- [18] Gopavanitha K., Nagaraju S. A low cost system for real time water quality monitoring and controlling using IoT; Proceedings of the 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS); Chennai, India. 1–2 August 2017; pp. 3227–3229.
- [19] Hasan M., Islam M.M., Zarif M.I.I., Hashem M.M.A. Attack and anomaly detection in IoT sensors in IoT sites using machine learning approaches. *Internet Things.* 2019;7:100059. <https://doi.org/10.1016/j.iot.2019.100059>
- [20] Hassanien A.E., Bhatnagar R., Darwish A. *Artificial Intelligence for Sustainable Development: Theory, Practice and Future Applications*. 1st ed. Springer; Cham, Switzerland: 2021.



- [22] Ighalo J.O., Adeniyi A.G., Marques G. Studies in Computational Intelligence. Springer; Cham, Switzerland: 2020. Internet of Things for Water Quality Monitoring and Assessment: A Comprehensive Review; pp. 245–259.
- [23] Jan F.,Min-Allah N., Düşteğör D. IoT Based Smart Water Quality Monitoring: Recent Techniques, Trends and Challengesfor Domestic Applications. Water. 2021;13:1729. <https://doi:10.3390/w13131729>.
- [24] Kamaludin K.H., Ismail W. Water quality monitoring with internet of things (IoT); Proceedings of the 2017 IEEE Conference on Systems, Process and Control (ICECDS); Meleka, Malaysia. 15–17 December 2017; pp. 18–23.
- [25] Ani U.,McK Watson J.,Nurse J.,Cook A.,Maples C. A review of critical infrastructure protection approaches: Improving security through responsiveness to the dynamic modelling landscape; Proceedings of the Living in the Internet of Things (IoT 2019); London, UK. 1–2 May 2019; 15p.
- [26] Liu P., Wang J., Sangaiah A.K., Xie Y., Yin X. Analysis and Prediction of Water Quality Using LSTM Deep Neural Networks in IoT Environment. Sustainability. 2019;11:2058. <https://doi:10.3390/su11072058>



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