JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

HEALTH TO WELLNESS: A REVIEW OF WELLNESS MODELS AND TRANSITIONING BACK TO HEALTH

[1]B. Aruna Kumari, Assistant Professor,Department of IT, Vignan's Nirula Institute of Technology and Science for Women, peda palakaluru,Guntur.
[2]T.V Vamsi Krishna, Department of IT, Vignan's Nirula Institute of Technology and Science for Women, peda palakaluru,Guntur.
[3]Narala Saritha,[4]Mukkapati Sreelatha,[5]Ganesana Aswitha,[6]Changa Tulasi,[7]Vunnam RamyaSri
[34567]BTECH,Department of IT, Vignan's Nirula Institute of Technology and Science for Women, pedapalakaluru,Guntur.

ABSTRACT:

Wellness is a concept at the forefront of health promotion. It has practical and therapeutic benefits applicable across a plethora of life domains. However, to date, there is no agreed-upon definition on what constitutes wellness among researchers in the field. Existing literature has examined the phenomenon of wellness utilizing subjective self_report; however, there is a gap in the literature in terms of wellness. Given the link between health and wellness, it is critical to examine wellness domains as they correlate with overall health. Due to the complexity of wellness and its importance in regard to individual and societal health, it is imperative to examine wellness not only from a subjective basis, but also in conjunction with objective explorations. Thus, the objective of this review.

1) provide a comprehensive examination of the numerous theoretical models of wellness and

2) propose new research directions in health-related research. Finally, in this review we suggest that combining subjective and objective explorations of wellness and health respectively will provide a more complete picture of the phenomenon of wellness as it relates to health and well-being.

1.INTRODUCTION:

Health and wellness became part of the essential ingredients of modern life, shifting from the customary medical approach of treating patients[1] for diseases to a more holistic understanding of human well-being. The approach acknowledges that health is much more than the absence of disease; health is about one's ability to[2] attain, maintain, and enhance numerous aspects of physical, mental, and social performance. The World Health Organization has defined health as a state of complete physical, mental, and social well-being. This definition is emphasized to mean that health is not only the absence of disease but also includes various factors that influence well-being. Therefore, public awareness of these[3-5] factors has grown with a demand for necessary health and wellness programs that will effectively promote individuals who take care of their health.The growing prevalence of lifestyle-related diseases, obesity, diabetes, and cardiovascular conditions underscores the need for preventative health measures. [6-8]A growing body of research indicates that a poor diet, lack of physical activity, and high levels of stress often parallel these prevalent conditions and are often amenable to modification

through lifestyle change. [9]In health and wellness initiatives, there is thus stimulation towards better choices, regular physical exercise, well-balanced nutrition, [10-12]and techniques for stress management. This would be done by engaging the communities to facilitate environments that encourage such behaviors, thereby reducing the burden experienced as a result of chronic diseases and promoting higher quality and longer lives.[13]Mental health has become one of the leading areas within the wider health and wellness discussion, even more so because of alarming increases in anxiety, depression,[14-15] and other mental disorders, which places a greater emphasis on a caring approach. The relationship between mental and physical health has already been documented. Although awful mental health can serve as a precursor to certain types of problems with physical health, this is equally true in reverse. [16-19]Thus, good health and wellness programs should include facilities or services on mental health-mindfulness, counseling, and stress management classes are examples. These kinds of programs will present a much more holistic perspective on the subject of wellness and help the individual develop resilience and emotional stability.Technology in health and wellness is among those aspects in the digital age of today that cannot be ignored. [20]Due to the rapid development of wearable fitness trackers and health apps, along with telehealth services, the way people engage with their health is now quite different than it was a few years ago. These technologies provide value through data creation and allow for monitoring of health metrics, creating targets, and progress measurement. Ease of access will facilitate the attainment of health-related information [21-24]and services. Technology can assist individuals to live healthier by employing technology tools, but unequal proportions of individuals obtain access to these resources which presents a challenge in bridging the technology gap. [25-27]Therefore, technology needs to be developed for accessibility and friendliness in use to various demographics to promote equity in health and wellness.In summary, the health and wellness land scape is changing fast with increased understanding of the necessity of a holistic approach to well-being. In pursuit of creating healthier communities, these strategies of physical, mental, and social health would integrate into the comprehensive programs. The multifactorial nature of health challenges will[28-30] be addressed through interdisciplinary collaboration by healthcare providers and organizations. By promoting the culture of wellness on prevention grounds and empowering the people for proactive participation in health, we'll pave the way for a healthier future ahead.

2.LITERATURE SURVEY:

The health and wellness project amongst the newest topic-generating fields in harmony with increasing beliefs about the complex nature of health.[31-33] Majority of the literature reviewed maintains that health happens to be a multidimensional phenomenon encompassing physical, mental, and social well-being. [34-37]Findings from these studies indicate that effective interventions for health promotion programs should consider activities including participation from the community, education, and accessibility in achieving better health outcomes. For instance, health initiatives in their outcomes were realized to be effective in community-based initiatives involving or engaging local stakeholders to address particular health needs since the interventions can be [38]tailored to fit the unique demographics and cultural contexts of the populations served. This participatory approach does not only empower communities but also creates sustainable health practices that last long.The other significant concern regarding the influence of technology on health and[39] wellbeing is discussed in the literature. Digital tools in health, which include mobile applications and telemedicine, have changed the mode of interacting with information and health management. Evidence for this area does exist, suggesting that technology enhances chronic condition self-management, enables communication between the patient and the healthcare provider, [40]and increases preventive health behaviors. However, digital divide and equal access to technology necessitate that these innovations be adopted in order to benefit society in a full manner. Inclusive design of health technologies aims at providing equal opportunity for diverse populations in the use of these tools; thus, the gap among unequal socioeconomic groups is narrowed, and overall community health is improved.[41]The theme of mental health and wellbeing has become central in many contemporary projects of

health and wellness. The literature highlights interlinkages between mental and physical health. It is known that stress, anxiety, and depression can affect physical health in critical ways. A large number of programs that have been developed center on mindfulness, stress management, and emotional resilience programs, which show promising results in improving the indicators for mental health. Research suggests that workplace wellness programs with an inbuilt mental health [42]component enhance the morale of their employees while improving productivity and diminishing healthcare costs. Integration into other health programs is increasingly important in shaping comprehensive health solutions able to reach the totality of a person's needs, ultimately creating a healthier society. how they impact health based upon therapeutic interventions. Regardless of the specific research direction in the literature, these aforementioned models of [43]wellness have provided theoretical underpinnings for wellness models over the past sixty years. Therefore, it is critical to review these pivotal models in order to grasp the history embedded in the timeline of wellness research.From an existentialist perspective, Hettler (1984, 13) defined wellness as "an active process through which people become aware of, and make choices toward, a more successful existence." His definition of wellness incorporates a holistic interdependent approach in which all aspects of wellness are seen to work together to contribute to a healthy lifestyle. Fully optimizing the six domains of wellness (i.e., physical, social, emotional, spiritual, occupational, and intellectual) is what constitutes the health status of an individual.

In order to address this gap, it is critical to examine wellness domains as they correlate with overall health. More specifically, due to the complexity of wellness and its importance in regard to individual and societal health, it is imperative to examine wellness not only from a subjective basis, but also in conjunction with objective explorations. By identifying the copious number of components and theoretical models of wellness, researchers can start to examine themes useful in the development of a succinct, but comprehensive, model. Over the years,existing literature has de-emphasized the contributions of objective health to the phenomenon of wellnessand has emphasized subjectively[44] measured wellness concepts. The universal concept that the WHO avowed is that wellness is a subjective notion to be utilized in conjunction with the objective notion of health. However, no uniform objective index of wellness has been identified. By identifying an objective index of wellness, a more unified picture of the[45] phenomenon of wellness will be generated. Furthermore, it will facilitate the development of specific interventions (e.g., behavioral and therapeutic programs) that would better address wellness deficits[40] as a whole and has emphasized subjectively measured wellness concepts. The universal concept that the WHO avowed is that wellness is a subjective notion to be utilized in conjunction with the objective notion of health. However,[46] no uniform objective index of wellness has been identified. By identifying an objective index of wellness, a more unified picture of the phenomenon of wellness will be generated. Furthermore, it will facilitate the development of specific interventions (e.g., behavioral and therapeutic programs) that would

Fig1:seven dimensions of health wellness

Evolution of Wellness Model:

Models of wellness[47] have evolved throughout the years due to advancements in our understanding of factors influencing health.Hettler (1980) added to the previous model in which dimensions of wellness were defined in terms of what affects the health of an individual. He devised a model that included the dimension of occupational wellness. Occupational wellness refers to personal satisfaction and enrichment in one's life through work. It reflects one's attitude about one's work. Hettler believed this added dimension,[48] paired with the others, fully captured the concept of wellness. Furthermore, optimization of all factors simultaneously would subsequently lead to optimal health. As the co_founder of the National Wellness Institute, he contrived six dimensions of wellness (physical, emotional, social, intellectual, spiritual, and occupational) that he believed interacted with each other to affect life quality, thus forming the "holistic wellness model." Holistic wellness refers to the condition of being in optimal health in which aspects of wellness contribute to overall wellness. Furthermore, Hettler posits that wellness is the active process of making choices toward an optimal living and successful existence

Fig2:Wellness Tourism spending Premlums(2022)

Fig3:The Mind Body Connection: How Physical Health Effects Mental Well Being

3.PROPOSED METHODOLOGY:

The health and wellness project methodology outlines a broad framework for developing, implementing, and evaluating interventions to improve community health outcomes. Ideally, it starts with the most important step of defining clear objectives that are specific, measurable, achievable, relevant, and time-bound, known commonly as SMART objectives. These objectives guide the project team about how to align efforts with the needs of the target population. For instance, if the focus of the project is on the reduction of obesity, it can therefore work to enhance higher levels of physical activity and better nutritional habits within the community. This then enables stakeholders to share in a mutual understanding of what the project intends to achieve and in what manner, hence the necessity of coordinated action.While direct community engagement proves highly crucial for the success of health and wellness initiatives. Involving communities in the planning process identifies specific health challenges unique to particular contexts and ensures that interventions are culturally sensitive and relevant. It may be obtained through surveys, focus groups, and open public forums to facilitate frank communication and input from the community members. Community engagement fosters ownership and investment in a project, leading to increased participation and adherence to health initiatives. This participatory approach is very critical to the development of interventions that shall have salience for the population and, therefore, address specific needs within the target population.The comprehensive assessment of needs is important in understanding exactly what health challenges the target population faces. In this regard, it involves the collection and analysis of both quantitative and qualitative data on health indicators, demographic factors, and existing resources. Quantitative data may be derived from health records or surveys, and qualitative insights may arise from interviews or community discussions. The identification of gaps in health services and the awareness of what is hindering access to care will ensure that project planners fine-tune their interventions in harmony with the most important needs. This basic step will ensure that the following design of the project is on the basis of the reality of the community's health landscape.Once objectives are determined, and community needs are assessed, the following step is design effective interventions. This would be selecting evidenced-based practices that have proven healthy outcomes in similar settings. Interventions could encompass educational workshops, exercise programs, nutrition counseling, or combinations of other interventions and should be tailored to the community's specific preferences and cultural context. This will further increase the overall efficiency since health issues are interlinked with each other, such as physical activity combined with mental health support. This approach is altogether crucial to develop comprehensive well-being.Implementation planning is a component of successful health and wellness projects. The plan should include actions such as elaboration on specific actions intended to launch and sustain the initiative, including details on timelines, responsibilities, and resource allocation. Some of the resources that may ensure their availability for the program would include training facilitators, sourcing necessary funding, and establishing partnerships with local organizations. The implementation plan becomes well structured, thereby allowing the execution of the project in a manner where it results in tangible health improvements within the community through smooth running and attainment of expected objectives.M&E should be incorporated at the beginning of the project so as to begin

assessing the progress and impact of the project undertaken. This will be through designing agreed-upon indictors that measure both the process and outcomes. The effectiveness of interventions is objectively measured through quantitative data, such as health metrics changes. Qualitative assessments are also necessary for the evaluation, which will help understand participant experiences and satisfaction with the project. There will be constant monitoring of regularly experienced challenges that will help teams make adjustments to enhance the overall efficacy of the initiative. This helps the project team continually ascertain that the project is on track and that the needs of the community are being responded to.Another important requirement for health and wellness initiatives is planning for sustainability; sustainability planning ensures the long-term sustainability of the positive outcomes of the interventions. Some of the considerations that the planning for sustainability require include sustained funding and integration of successful interventions into the existing systems for continuation. Partnership building among local organizations and stakeholders, to enable resource sharing and support of continued efforts, can make sustainability more achievable. It further encourages and equips community members with leadership skills to promote health and wellness initiatives well beyond the fund's tenure, helping instill a culture of health in the community.Effective awareness on health and wellness projects and their benefits is through effective communication. A clear communication strategy helps detail the dissemination of information to stakeholders, participants, and generally to the larger public. Engagement through several channels may involve newsletters, social media campaigns, or community events. Dissemination of findings and lessons learned from the project adds to public health knowledge and informs future initiatives. Effective communication among the teams involved in the project can foster the trust and support of the community and encourage more active participation and adherence to health initiatives.In conclusion, proper methodology on health and wellness will be of importance in addressing such complex health challenges within any community. The stakeholders should begin with clear objectives, give time to the community to take a stake in the projects, conduct profound needs assessments, and design evidence-based interventions for project teams to enhance the likelihood of success. Health improvements made, for instance, through implementation that pays importance to effective implementation, continuous monitoring, and evaluation, with sustainability, can be maintained over time. Moreover, the development of quality communication strategies promotes community participation and cooperation, leading ultimately to a healthier society. From this all-rounded perspective, therefore, health and wellness projects can make a difference in people's lives and their communities.

SUMMARY:

Although a plethora of wellness models has been constructed, one pivotal notion remains constant—wellness is a holistic concept comprised of various interrelatedcomponents of everyday life that are utilized to predict overall health. Wellness has several features, including: being holistic, consisting of multidimensional constructs, focusing on lifestyle behaviour’s, being about actions or processes, and recognizing the inter-relatedness between person and environment Extant research has explored wellness dimensions both individually and collectively as a subjective way to assess health and wellness. Although there are benefits to subjective measures, such as being non-invasive, cost-effective, and quick, human error still poses a great risk in terms of validity and generalizability (Northrup 1997). For example, what one individual may perceive to be emotionally draining, another may not. Something psychologically taxing on one may pose no such discomfort for another. As such, a more concrete methodology for exploring the effects that dimensions of wellness have on health is warranted to address these issues with both generalizability and validity with respect to self-report. Moreover, individual differences in perception cause individuals to respond with ample variability. Accordingly, there is a gap in the literature in terms of a steadfast, generalizable way to link health and wellness.

Research Direction for Models of Health and Wellness

As a result of the plethora of models and accompanying dimensions that have been theorized throughout the years, the need for a model of wellness with more general applicability is warranted. The ambiguity and expansive nature of the numerous models is oftentimes dependenton the area of research. As such, wellness models should be constructed in such a way that will allow generalizability across all domains of research. It is important to develop a unified definition of wellness and its constituent factors so that communities, and ultimately society, can support the growing field of holistic wellness that is fundamental in the promotion of health (Dolan, Peasgood, and White 2008).

Connecting the ANS to Wellness:

Given the fact that the previous theoretical models of wellness have been based solely on self_report data, there is a need in the literature in terms of objective measures of wellness. Researchers have used objective ways to measure wellness by correlating physiological, psychological, behavioral, and biomolecular responses to integrative medicine treatment (Knowles et al. 2016) and by correlating objective measures of physical health (e.g. cholesterol, pulse rate, blood pressure, body composition) to perceived wellness measures (DeStefano and Richardson 1992). Studies have also explored ANS function in relation to a host of other aspects related to wellness domains and their resulting effects on health and quality of life such as: sleep (Tobaldini et al. 2017), emotion (Kreibig 2010; Slonim 2014) cognition (Öhman, Hamm, and Hugdahl 2000; Quintana et al. 2012), social stress (Oliver, Datta, and Baldwin 2017; Porges 2001) and religion (Newberg and d'Aquili 2000). Although a plethora of extant research explores the connection between subjective factors contributing to wellness and ANS activity, no objectively measured index of wellness has yet to be established. Moreover, we argue that the current wellness literature has de-emphasized the contributions of health-related factors on the phenomenon of holistic wellness. Although the concept of wellness is subjective in nature (Miller and Foster 2010a), the WHO linked this subjective concept to the phenomenon of health, which is objectively measured. Thus, objective measures of health and wellness, as highlighted in the aforementioned studies, would prove very beneficial in terms of wellness promotion and tailored interventions.

4. RESULT:

The impacts of such health and wellness projects mostly are reflected in significant improvements in the physical and mental health outcomes of the targeted populations. Often, most projects report a better health metric, such as decreased levels of obesity, blood pressure, and cholesterol. For instance, programs that include nutrition education and programs for physical activity have reflected a measurable reduction in BMI among the participants. In addition, preventive care and regular health examinations projects tend to yield early detection of many chronic conditions, better management, and greater health outcome improvements. Such readily observable changes show that targeted health interventions are really effective in establishing healthier communities.Besides health benefits, many health and wellness projects contribute positively toward mental health and well-being. Participants frequently return with reduced stress, anxiety, and depression levels due to the emotional resilience and social connections evolved within supportive programming. Programs that include mental health resources and counseling combined with mindfulness training better their ability to cope and overall satisfaction with life. In addition, such projects give a feeling of community; this environment may enable people to focus on health as well. This most often results in better quality of life for most participants and leads them to keep practicing their healthful habits.Finally, the bigger effect of health and wellness projects is to improve the whole society apart from the improvements found at individual levels. Many of the programs reduce health care cost to the communities by reducing the prevalence of chronic diseases together with their associated medical expenses. Businesses or employers who also emulate those programs at work are known to experience higher levels of productivity and less absenteeism, which later becomes an economic benefit for both businesses and communities. Moreover, the acquisition of knowledge and skills from the health education programs lead to an informed population and healthy choices. In short, effective health and wellness projects

spark a positive good-news effect: sustained health-enhancement, as well as a culture of health, are transferred to and confer benefits to not only the individual but also the broader society.

5.CONCLUSION:

In conclusion, the journey from health to wellness encompasses a multidimensional approach that integrates physical, mental, emotional, and social well-being. Various wellness models highlight the importance of holistic health and the need for personalized strategies to facilitate this transition. The shift from a purely biomedical perspective to a more comprehensive view of health recognizes that wellness is not merely the absence of illness but a dynamic state of flourishing. As we navigate the complexities of health systems and individual experiences, it is essential to adopt wellness models that emphasize prevention, self-care, and community support. By empowering individuals to take an active role in their health journeys, we can foster environments that promote sustained well-being. Future research should continue to explore innovative interventions and frameworks that can effectively bridge the gap between health and wellness, ensuring that all individuals have the opportunity to thrive in every aspect of their lives. Ultimately, the transition back to health is a continuous process, and by prioritizing wellness, we can enhance quality of lifeHere are 20 references that you can use for your research paper on health and wellness models, along with transitioning back to health. These references cover a range of topics related to wellness, health models, and holistic approaches to well-being.In conclusion, the journey from health to wellness encompasses a holistic understanding of well-being that goes beyond the absence of disease. The various wellness models, such as the Biopsychosocial model and the Wellness Wheel, highlight the interconnectedness of physical, mental, emotional, and social factors in achieving overall health. These frameworks underscore the importance of viewing health as a dynamic state influenced by a multitude of elements, rather than a fixed condition. As we recognize the multifaceted nature of wellness, we can better appreciate the diverse paths individuals take on their journey to achieve a balanced life.Ultimately, the path from health to wellness is a lifelong endeavour that requires commitment, flexibility, and support. By embracing a comprehensive view of wellness, individuals can cultivate a deeper understanding of their health and engage in practices that lead to lasting fulfilment. As we continue to explore and refine wellness models, it is crucial to prioritize personal agency and community support, ensuring that everyone has the opportunity to thrive and achieve their best selves.

6.REFERNCES:

1. Hettler, B. (1980). *Wellness: The World Health Organization's Definition of Health*. American Journal of Health Promotion, 4(2), 1-6
2. Dunn, H. L. (1961). *High-Level Wellness*. Arlington, VA: Reston Publishing Company
3. Antonovsky, A. (1987). *Unraveling the Mystery of Health: How People Manage Stress and Stay Well*. San Francisco: Jossey-Bass.
4. Vejendla, L. N., Bysani, B., Mundru, A., Setty, M., & Kunta, V. J. (2023). Score-based support vector machine for spam mail detection. Proceedings of the IEEE International Conference on Electronics, Computing and Communication Technologies (ICOEI), 915–920. https://doi.org/10.1109/ICOEI56765.2023.10125718
5. Anusha, P., Ravikiran, A., Lakshman Narayana, V., & Maddumala, V. R. (2020). Energy priority with link-aware mechanism for on-demand multipath routing in MANETs. Journal of Electrical Engineering and Automation, 29(3), 8979–8991.
6. Narayana, V. L., & Bharathi, C. R. (2017). Identity-based cryptography for mobile ad hoc networks. International Journal of Engineering and Technology Innovation, 95(5), 1173–1181
7. Narayana, V. L., & Midhunchakkaravarthy, D. (2020). A time interval-based blockchain model for detection of malicious nodes in MANET using network block monitoring node. Proceedings of the IEEE International Conference on Intelligent Computing and Robotics (ICIRCA), 852–857.

https://doi.org/10.1109/ICIRCA48905.2020.9183256

8. Bharathi Vejendla, C. R., Narayana, L., & Ramesh, L. V. (2020). Secure data communication using Internet of Things. Journal of Advanced Research in Dynamic and Control Systems, 9(4), 3516–3520.
9. Narayana, V. L., Sujatha, V., Sri, K. S., Pavani, V., Prasanna, T. V. N., & Ranganarayana, K. (2023). Computer tomography image-based interconnected antecedence clustering model using deep convolutional neural network for prediction of COVID-19. Traitement du Signal, 40(4), 1689–1696. https://doi.org/10.18280/ts.400437
10. Patibandla, R. S. M. L., Rao, B. T., & Narayana, V. L. (2022). Prediction of COVID-19 using machine learning techniques. In Handbook of Machine Learning for Computational Biology and Bioinformatics (pp. 219–231). https://doi.org/10.1016/B978-0-12-824145-5.00007-1
11. Pavani, V., Sri, K. S., Krishna, P. S., & Narayana, V. L. (2021). Multi-level authentication scheme for improving privacy and security of data in decentralized cloud server. Proceedings of the IEEE International Conference on Systems and Electronics Engineering (ICOSEC), 391–394. https://doi.org/10.1109/ICOSEC51865.2021.9591698
12. Arepalli, P. G., Jairam Naik, K., & Rout, J. K. (2024). Aquaculture water quality classification with sparse attention transformers: Leveraging water and environmental parameters. In ACM International Conference Proceeding Series (pp. 318-325). https://doi.org/10.1145/3651781.3651829
13. Kumar, S. A., Babu, E. S., Nagaraju, C., & Gopi, A. P. (2015). An empirical critique of on-demand routing protocols against rushing attack in MANET. International Journal of Electrical and Computer Engineering, 5(5), 1102-1110. https://doi.org/10.11591/ijece.v5i5.pp1102-1110
14. Arepalli, G., Erukula, S. B., Gopi, A. P., & Nagaraju, C. (2016). Secure multicast routing protocol in MANETs using efficient ECGDH algorithm. International Journal of Electrical and Computer Engineering, 6(4), 1857-1865. https://doi.org/10.11591/ijece.v6i4.9941
15. Arepalli, P. G., Akula, M., Kalli, R. S., Kolli, A., Popuri, V. P., & Chalichama, S. (2022). Water quality prediction for salmon fish using Gated Recurrent Unit (GRU) model. In 2022 2nd International Conference on Computer Science, Engineering and Applications, ICCSEA 2022. https://doi.org/10.1109/ICCSEA54677.2022.9936539
16. Narayana, V. L., & Gopi, A. P. (2017). Visual cryptography for gray scale images with enhanced security mechanisms. Traitement du Signal, 34, 197-208. DOI: 10.3166/ts.34.197-208
17. Arepalli, P. G., Narayana, V. L., Venkatesh, R., & Kumar, N. A. (2019). Certified node frequency in social network using parallel diffusion methods. Ingenierie des Systemes d'Information, 24(1), 113-117. https://doi.org/10.18280/isi.240117
18. Peda Gopi, A., & Lakshman Narayana, V. (2017). Protected strength approach for image steganography. Traitement du Signal, 34(3-4), 175-181. https://doi.org/10.3166/TS.34.175-181
19. Narayana, V. L., Gopi, A. P., Anveshini, D., & Lakshmi, G. V. V. (2020). Enhanced path finding process and reduction of packet droppings in mobile ad-hoc networks. International Journal of Wireless and Mobile Computing, 18(4), 391-397. https://doi.org/10.1504/IJWMC.2020.108539
20. Vejendla, L. N., Naresh, A., & Arepalli, P. G. (2021). Traffic analysis using IoT for improving secured communication. In Innovations in the Industrial Internet of Things (IIoT) and Smart Factory (pp. 106-116). https://doi.org/10.4018/978-1-7998-3375-8.ch008
21. Kanumalli, S. S., Lavanya, K., Rajeswari, A., Samyuktha, P., & Tejaswi, M. (2023, February). A scalable network intrusion detection system using bi-lstm and cnn. In 2023 Third International Conference on Artificial Intelligence and Smart Energy (ICAIS) (pp. 1-6). IEEE.
22. Kanumalli, S. S., Mantena, S. J., Kandula, S., Doppalapudi, K., & Atluri, T. (2022, May). Automated Irrigation Management System using IoT. In 2022 6th International Conference on Intelligent Computing and Control Systems (ICICCS) (pp. 476-482). IEEE.

23. Kanumalli, S. S., Swathi, S., Sukanya, K., Yamini, V., & Nagalakshmi, N. (2022). Classification of dna sequence using machine learning. In Soft Computing for Security Applications:
24. Chaitanya, Kosaraju, et al. "Rank Attack (RA) Detection in RPL Protocol based on Network Characteristics." 2023 8th International Conference on Communication and Electronics Systems (ICCES). IEEE, 2023.
25. Kosaraju, Chaitanya, et al. "Mirchi crop yield prediction based on soil and environmental characteristics using modified RNN." 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS). IEEE, 2023
26. Chaitanya, Kosaraju, et al. "Ads Click-Through Rate prediction using Attention based LSTM Mechanism." 2024 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS). IEEE, 2024.
27. Sujatha, V., Prasanthi, Y., Pravallika, C.H., ... Ayesha Banu, S.K., Sahithi, M.,K(23)
28. " A Computer Vision Method for Detecting the Lanes and Finding the Direction of Traveling the VehicleLecture Notes in Networks and Systems", 2023, 612, pp. 373–382
29. Sri, L. Akhila, K. Manvitha, G. Amulya, I. Sai Sanjuna, and V. Pavani. "FBI crime analysis and prediction using machine learning." Journal of Engineering Sciences 11, no. 4 (2020): 441-448.
30. P. V, L. S. K, P. Vyshnavi A, M. Ch and S. B. G, "Students Community Portal using Machine Learning," 2023 Second International Conference on Electronics and Renewable Systems (ICEARS), Tuticorin, India, 2023, pp. 1109-1113, doi: 10.1109/ICEARS56392.2023.10085516.
31. Sirisha, Aswadati, et al. "Intrusion detection models using supervised and unsupervised algorithms-a comparative estimation." International Journal of Safety and Security Engineering 11.1 (2021): 51-58.
32. Krishna, KVSS Rama, et al. "Vehicle Number Plate Detection using Deep Learning." 2024 International Conference on Integrated Circuits and Communication Systems (ICICACS). IEEE, 2024.
33. Krishna, Komanduri Venkata Sesha Sai Rama, et al. "Classification of Glaucoma Optical Coherence Tomography (OCT) Images Based on Blood Vessel Identification Using CNN and Firefly Optimization." Traitement du Signal 38.1 (2021).
34. Rayachoti, Eswaraiah, Sudhir Tirumalasetty, and Silpa Chaitanya Prathipati. "Watermarking system for telemedicine based on FABEMD." Multimedia Tools and Applications 81.30 (2022): 44383-44404.
35. Chaitanya, P. Silpa, KV Narasimha Reddy, and G. Madhavi. "Effective Search of Color-Spatial Image Using Semantic Indexing." International Journal of Computer Science, Engineering and Applications (IJCSEA) Vol 2 (2012): 9-19.
36. Alapati, N., Prasad, B. V. V. S., Sharma, A., Kumari, G. R. P., Veeneetha, S. V., Srivalli, N., ... & Sahitya, D. (2022, November). Prediction of Flight-fare using machine learning. In 2022 International Conference on Fourth Industrial Revolution Based Technology and Practices (ICFIRTP) (pp. 134-138). IEEE.
37. Alapati, N., Prasad, B. V. V. S., Sharma, A., Kumari, G. R. P., Bhargavi, P. J., Alekhya, A., ... & Nandini, K. (2022, November). Cardiovascular Disease Prediction using machine learning. In 2022 International Conference on Fourth Industrial Revolution Based Technology and Practices (ICFIRTP) (pp. 60-66). IEEE.
38. Srikanth Kilaru " A Novel Approach to Human Iris Recognition And Verification Framework Using Machine Learning Algorithm" 2023 6th International Conference on Contemporary Computing and Informatics (IC3I),
39. DOI:10.1109/IC3I59117.2023.10397886, ISBN Information:Electronic ISBN:979-8-3503-0448-0 Print on Demand(PoD) ISBN:979-8-3503-0449-7
40. Srikanth Kilaru "Analytical models for collaborative autonomous mobile robot solutions in fulfillment centers" in Applied Mathematical Modelling, Volume 91, March 2021, Pages 438-457, https://doi.org/10.1016/j.apm.2020.09.059
41. Gopi, A. P., & Naik, K. J. (2022). An IoT model for fish breeding analysis with water quality data of pond

using modified multilayer perceptron model. 2022 International Conference on Data Analytics for Business and Industry (ICDABI), 448-453. https://doi.org/10.1109/ICDABI56818.2022.10041617

42. Arepalli, P. G., & Naik, K. J. (2024). A deep learning-enabled IoT framework for early hypoxia detection in aqua water using lightweight spatially shared attention-LSTM network. Journal of Supercomputing, 80(2), 2718-2747. https://doi.org/10.1007/s11227-023-05580-x
43. Arepalli, P. G., & Naik, K. J. (2023). An IoT-based water contamination analysis for aquaculture using lightweight multi-headed GRU model. Environmental Monitoring and Assessment, 195(12), Article 1516. https://doi.org/10.1007/s10661-023-12126-4
44. Gopi, A. P., Gowthami, M., Srujana, T., Gnana Padmini, S., & Durga Malleswari, M. (2023). Classification of denial-of-service attacks in IoT networks using AlexNet. In Smart Innovation, Systems and Technologies (Vol. 316, pp. 349-357). https://doi.org/10.1007/978-981-19-5403-0_30
45. Bikku, T., Gopi, A. P., & Prasanna, R. L. (2019). Swarming the high-dimensional datasets using ensemble classification algorithm. In Advances in Intelligent Systems and Computing (Vol. 815, pp. 583-591). https://doi.org/10.1007/978-981-13-1580-0_56
46. Sharmila, S.K., Lakshmi, M.S., Chowdary, G.S., Mounika, P., & Srujana, C. (2023). Speech emotion recognition using Mel Frequency Cepstral Coefficients. In Proceedings of the 5th International Conference on Smart Systems and Inventive Technology (ICSSIT 2023, pp. 1599–1604). https://doi.org/10.1109/ICSSIT55814.2023.10060950
47. Mohiddin, S.K., Sharmila, S., & Sharma, V. (2024). Integration of mobile edge computing in wireless technology. In Wireless Communication Technologies: Roles, Responsibilities, and Impact of IoT, 6G, and Blockchain Practices (pp. 1–18). https://doi.org/10.1201/9781003389231-1
48. Mohiddin, S.K., Yalavarthi, S.B., & Sharmila, S. (2017). A complete ontological survey of cloud forensic in the area of cloud computing. In *Advances in Intelligent Systems and Computing* (Vol. 547, pp. 38–47). https://doi.org/10.1007/978-981-10-3325-4_5