

Current scenario of digital growth in the state of Chhattisgarh

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ABSTRACT

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The first steps that were going to be the giant leap in the field of information technology in India started in the mid-1990s and 2000s and incidentally it was in the year 2000 that the state of Chhattisgarh came into existence. This paper focuses on how in two decade this relatively new has gone from strength to strength in terms of e governance and use of digital technology in providing ease of government functioning, which otherwise in infamous for its redtapism and is considered a time taking procedure. Through a straightforward idea, the ongoing administration is forceful forward the Digital India drive to improve the nation hooked on a carefully sceptered civilization and an information budget. With the sendoff of this drive, the public authority intends to accomplish perished set citizens inside the remotest of areas and fabricate them with computerized instruments which can enable electors and persuade be huge advantage. Advanced India provides the imperative impetus to the nine pillars of development, including Broadband Highways, Universal Access to Mobile Property, and public Internet Access Programs. This article presents illuminating examinations of the most recent rising patterns of the computerized economy in India, with particular emphasis on Chhattisgarh.

Keywords: change; development; entry; availability; crusade; computerized

Introduction

India is going to be the next superpower in the coming decade. The consistent development in the field of information technology in many states has made this possible. To prepare present-day India for a future information economy. IT (Indian Talent) plus IT (Information Technology) equals IT (India Tomorrow) on account of their exceptional qualities. Making innovation essential to change facilitation. A Program Covering Several Government Divisions. The program weaves together a large number of thoughts and considerations into a single, all-encompassing vision so that each is viewed as a component of a common goal [1, 2]. Numerous extant plans will be redesigned, re-engaged, and re-executed as part of the Digital India Program. It expects to offer a wide range of assistance electronically and advance computerized training in India with the assistance of advanced innovations which incorporates distributed computing and versatile applications have arisen patterns as the impetuses for conveying financial development and resident strengthening. Moreover, Figure 1 shows the glimpse of the digital India [3].





Figure 1. Glimpse of Digital India (Source: www.digitallindia.gov.in).

Chhattisgarh has been pronounced as the best performing state for its praiseworthy work in the field of data innovation during the ‘Computerized India Week 2015’. The Prime Minister of India, Shri. Narendra Modi, launched Computerized India on 1 July 2015, with the goal of connecting country regions with high-speed Internet organizations and advancing education. The goal of the Digital India program is comprehensive growth in electronic administrations, products, assembly, and vacant positions [4]. The Government of India’s flagship initiative to transform India into a meticulously enabled society and information economy is Computerized India. The quip is entitled Power to Empower. In the mid-1990s, India’s e-government development took on a broader perspective for broader sectoral applications with an emphasis on citizen-driven services. The primary information and communication technology (ICT) initiative of the government comprised, inter alia, a number of essential projects [5].

Chhattisgarh being a relatively new state still has far better Digital economy infrastructure as compared to its neighboring states. The previous Chief Minister Raman Singh had sent off upwards of 16 premium computerized administrations, including Chief Minister run board portal, for individuals during that period. Wi-Fi city plan to guarantee free fast web office to individuals, particularly understudies, openly puts, mobiles application for e-region administrations, online office for five annuity plans of social government assistance division and six of income division, co-

ordinated Chhattisgarh versatile application, Chhattisgarh grounds associate gateway, LokSeva Kendra and Common Service Centers in towns were among the offices begun during the week. The Chhattisgarh Info-tech and Biotech Promotion Society (CHiPS), is the nodal organization for driving IT development and execution of IT plans in the state [6, 7].

The State of Chhattisgarh has acknowledged the importance of information technology as a crucial facilitator for its economic progress. Consequently, it has implemented a strategic plan to encourage innovation, business incubation, and entrepreneurship within the sector. The inaugural Smart City in the country was established at Naya Raipur. The establishment of Electronic Manufacturing Clusters and Information Technology Investment Regions (ITIR) is being pursued. The objective is to facilitate financial accessibility for newly established IT and ITeS enterprises within the region. The objective is to guarantee interoperability and adherence to standards for operations within the state.

- Generating market opportunities inside the state for emerging IT and IT-enabled services (IT&ITeS) enterprises.
- Enhancing workforce proficiency by facilitating the establishment of esteemed institutions such as IIT, IIIT, and IIM in the region.
- Promoting academic and research endeavors inside the state.
- Expanding and upgrading state-of-the-art information technology infrastructure, including the implementation of a 4G network. The current advancements in technology have facilitated enhanced mobile and broadband connectivity through the expansion of fiber optic networks to residential areas and rural villages. This development enables improved access to the latest technological resources. Furthermore, the state has issued a notification regarding the importance of privacy, security, data protection, and cyber security. This initiative aims to safeguard individuals’ personal information and ensure the secure handling of data. Additionally, the implementation of the Unique Identi-

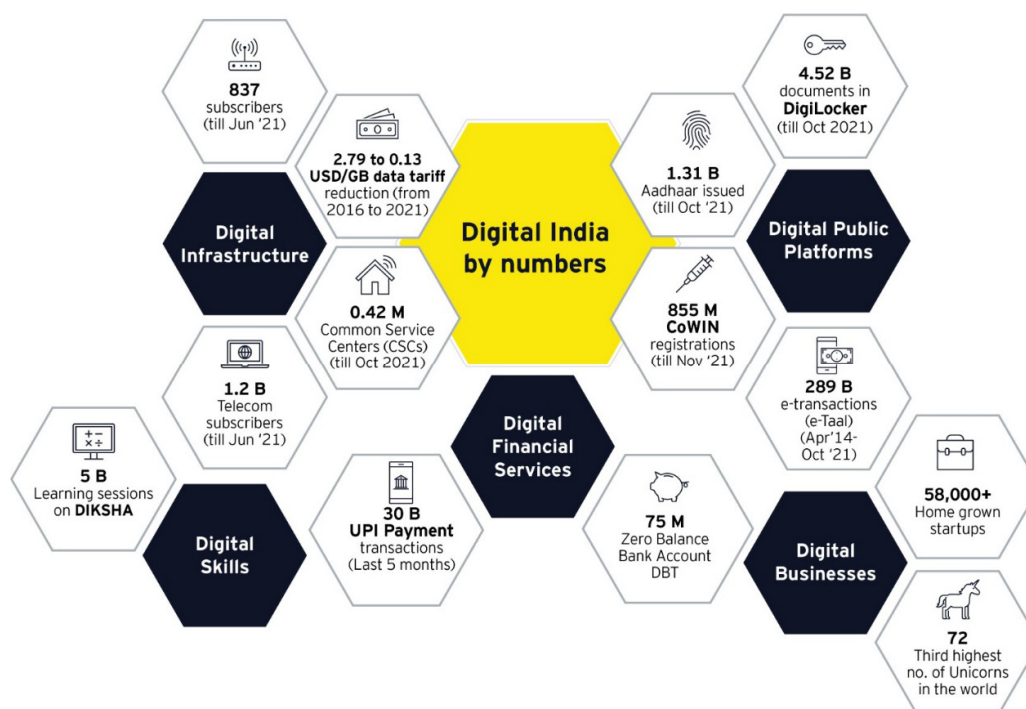


Figure 2. Growth of digital India in various service sector.

fication (UID) Aadhaar framework has been utilized for identity management purposes. This framework, as outlined in the Electronics, IT and ITES Investment Policy of Chhattisgarh, provides a reliable system for verifying and managing individuals' identities. (Prelude, page 5). Moreover, Figure 2 illustrates the expansion of the digital landscape in India across multiple service sectors, as evidenced by scholarly sources [8-12].

The other services that already existed were rail route computerization, land record computerization, and so on, which focusing generally on the advancement of data frameworks. Not long after on, many states began decided individual e-administration projects focused on offered those electronic types of assistance to civilization. Though these e-administration schemes remained resident driven, they could kind not exactly the favored power because of their inadequate highlights. The remote and less intuitive frameworks uncovered significant holes that were awkward the fruitful

execution of e-administration along the whole range of administration [8, 9, 12-17].

Venture zones catering to the electronics, information technology (IT), and information technology-enabled services (ITES) industry.

1. The Information Technology Special Economic Zone (IT SEZ), the Information Technology Investment Region (ITIR), and the Electronic Manufacturing Cluster (EMC) are established in Naya Raipur and other prominent urban regions, in addition to being located in an IT hub.
2. The intention is to occupy newly constructed buildings, namely the Business Innovation and Hatching Center and the Software Technology Park, which are located in prominent urban areas.
3. The enhancement of Electronics, Information Technology (IT), and IT-enabled Services (ITES) in the state is being facilitated through the implementation of E-Governance initiatives.

The user's text does not contain any information to rewrite in an academic manner. Chhattisgarh has emerged as a prominent frontrunner in the adoption and implementation of e-Governance initiatives, garnering various accolades and recognition both domestically and internationally. The second point is as follows. One of the few states that has established a dedicated network for all administrative offices, a reliable e-Governance framework that includes a "State Wide Area Network," State Data Center, applications, payment systems, SMS services, and other specialized portals. The third point is as follows: The initial jurisdiction to adopt a reduced-paper approach to electronic operations within its governmental services and secretariats. The fourth point is as follows: The optical fiber network is gradually becoming available in all block base camps, and it is expected that soon all panchayats would be connected with fiber. Various telecommunications providers are offering exceptional network services.

Online framework for "development license" in Chhattisgarh has been pronounced as the 'Best Practice' in India (according to BRAP 2016 evaluation)

The <https://digitalseva.csc.gov.in/web/services> provides various kinds of services. From Adhaar, to Banking Pension, Education, Agriculture, Health and Insurance. It provides a wide range of digital facilities to the people of Chhattisgarh.

Recently the government of Chhattisgarh has started a new policy-; Tuhar Sarkar TuharDwar' which means, your government at your door steps'. Due to this lockdown, the state governments are trying to make all the facilities available online. One such effort has been made under Tuhar Sarkar TuharDwarYojana. Through this Tuhar Sarkar TuharDwarYojana 2022 online facility, you will be able to easily get the benefits of 10 license related services including duplicate license driving license renewal and address change and 12 services related to vehicles including ownership transfer

and address change sitting at home [7-10, 17-21].

Mobile Connectivity Coverage: There are many spots across India where present-day honors - like electric associations or telephonic availability - are as yet tricky. Be that as it may, in Chhattisgarh, a persuasive change is as of now in progress, at this very moment. Across provincial Chhattisgarh, cell network entrance used to be the most reduced in the country at 29%. Three-fourths of families across country locales in the state were detached and for the people who ended up having an essential cell phone, moving on a mountain or even a tree to settle on a decision was the miserable reality.

To settle this, a computerized upheaval was conceptualized by the state government last year that planned to engage provincial networks through telecom entrance and assist them with getting a charge out of consistent organization network like every other person the nation over.

That is where the Sanchar KrantiYojana (SKY) comes in. A fastidiously arranged and very much carried out plot by the state government, and fueled by the Chhattisgarh Infotech Promotion Society (CHIPS), it guaranteed versatile network across the state, accomplishing numerous objectives in one go - like financial development, social turn of events and through these, enabling provincial networks through network. Sanchar KrantiYojana intended to associate and enable the residents of the state. SKY paved the way for limitless potential outcomes and open doors, will additionally reinforce resident commitment to administration and was significant in establishing the underpinning of a Smart Chhattisgarh.

Government Business Process Re-designing utilizing IT to further develop exchanges Form Simplification, decrease online applications and following, Interface between divisions utilization of online vaults for example school endorsements, elector ID cards, and so on.

The coordination of administrative bodies and phases.

The UIDAI, Payment Gateway, Mobile Platform, and EDI Electronic Databases all only utilize electronic data sets and do not include any human data processing. The automation of workflow processes within governmental institutions.

Community Complaint Redressal- Leveraging information technology to automate, analyze, and evaluate data in order to identify and resolve ongoing issues primarily involves process enhancements.

To be carried out crossways' management - basic for change.

The E-Revolution refers to the implementation of electronic delivery systems for various services.

The Advanced Literacy program aims to enhance participants' literacy skills through the utilization of Massive Open Online Courses (MOOCs). This program is designed to pilot the effectiveness of MOOCs in fostering advanced literacy abilities. Massive Online Open Courses (MOOCs) are a form of online education that has gained significant popularity in recent years. MOOCs are characterized by their large-scale enrollment, allowing a vast number of students The utilization of technology in the field of healthcare, sometimes referred to as e-Healthcare, has emerged as a significant area of focus.

The topic of debate is centered around online clinical discourse. The topic of discussion pertains to the utilization of digital platforms for the purpose of documenting and managing clinical records. The provision of drugs using online platforms.

The trading of patient data in India was piloted in 2015, with the aim of achieving full inclusion within a span of three years. The utilization of technology in the field of planning is a crucial aspect of contemporary urban development. One such technology that holds significant potential is the Geographic Information System (GIS). By employing GIS, a dynamic and comprehensive National GIS Mission Mode may be established, enabling efficient and effective planning

processes. The implementation of technological advancements in agricultural practices for the benefit of farmers. The data pertaining to ongoing costs. The process of accessing information sources using online platforms.

The utilization of digital platforms for financial transactions, such as online money transfers and credit services, has become increasingly prevalent in contemporary society. Additionally, the availability of flexible payment options has emerged as a means of providing financial assistance to individuals. The Role of Technology in Enhancing Security Measures and Facilitating Portable Emergency Services The utilization of technology to foster financial inclusion The concept of mobile banking refers to the use of mobile devices, such as smartphones or tablets, to perform various financial transactions and activities

The program for a little automated teller machine (ATM) The topic of discussion pertains to Customer Service Centers (CSCs) and Post Offices. The application of technology in the pursuit of justice.

The utilization of electronic platforms in the judicial system, law enforcement agencies, correctional facilities, and legal proceedings. The ongoing program known as the National e-Governance Plan (NeGP) will undergo a revamp in order to encompass the following components: Public Cyber Security Co-ordination Center and Technology for Security.

Statistics For Entirely

The state of Chhattisgarh has implemented an online platform for the hosting and dissemination of information and documents. The general populace enjoys unrestricted and convenient availability of information. The open data platform refers to a digital infrastructure that facilitates the sharing and accessibility of data in a transparent and unrestricted manner.

The Chhattisgarh Government aggressively utilizes social media and web-based platforms as a means of

Table 1. Descriptions of the top 10 service

Sl. No.	Services	Descriptions
01	Digit Locker	The Ministry of Electronics & IT (MeitY)'s flagship project for the Digital India program is called DigiLocker. By giving citizens' digital document wallets access to real digital documents, DigiLocker intends to "Digitally Empower" them. A secure cloud-based platform called DigiLocker allows users to save, share, and verify documents and certificates.
02	Bharat net	One of the largest rural telecom projects in the world, BharatNet, was phased-in to all Gram Panchayats (about 2.5 lakh) in the nation in order to give all telecom service providers equal access to broadband connectivity. The goal is to make it possible for content providers, cable TV operators, mobile operators, and ISPs to launch a variety of services, including applications for e-health, e-education, and e-governance in rural and distant India.
03	My Gov App	MyGov is a platform for citizen engagement created by the Indian government on July 26, 2014, to encourage residents to actively participate in the governance and development of their nation. A shared platform for Indian residents to "crowdsource governance ideas from citizens" is what it aims to create.
04	e-Sign	The Information Technology (IT) Act, 2000 requires that in order to create electronic signatures, the signer receive a Digital Signature Certificate (DSC) from a Certifying Authority (CA) that has been granted authorization by the Controller of Certifying Authorities (CCA).
05	National Scholarship Portal	The National Scholarship Portal is a website run by the Indian government that students can use to apply for, process, verify, and receive government scholarships. It seeks to lessen inconsistencies and offer students a uniform, efficient, and transparent method of receiving scholarships.
06	Swachh Bharat Mission (SBM) App	The Government of India launched the Swachh Bharat Mission, Swachh Bharat Abhiyan, or Clean India Mission on October 2, 2014, with the goal of eradicating open defecation, enhancing solid waste management, and establishing open defecation-free villages.
07	e-Education	The use of electronic and ICT in education has led to the development of online learning, one of the many facets of e-learning. It is a technique for sending educational content over the Internet. It is suitable for distance learning and flexible and self-paced. It is now feasible to connect with millions of students who desire to further their education from remote locations thanks to the usage of ICT in education.
08	e-Health	Electronic prescription, Telehealth, and electronic health records are just a few examples of the types of healthcare services that fall under the category of eHealth. At least since the 1990s, computerized processes have been used in the healthcare industry.
09	Wi-Fi Hotspots.	These places are commonly referred to as "Wi-Fi hotspots" or "Wi-Fi connections." Hotspots, in the simplest terms, are actual locations where people may wirelessly connect their mobile devices, like smartphones and tablets, to the Internet.
10	E-Kranti	In order to realize its vision of "ensuring government-wide transformation by delivering all government services electronically to citizens via integrated, interoperable systems through multiple modes," e-Kranti's primary goal is to speed e-governance throughout India.

engaging with individuals and disseminating information. The website "My Gov.in" is a platform that facilitates citizen engagement and participation in the governance process in India.

The Table 1 no.1 above following list enumerates the top ten government services that have been implemented under the Digital India initiative and are currently operational in the state of Chhattisgarh,

spanning from the sixth to the twelfth position [6-12].

Administration of Republic of India drive agendas:

Progress And Impact of Digital India That Chhattisgarh State Is Going To Be Benefitted With Broadband in 2.5 lakh towns, all-inclusive telephone network Net Zero Introductions by 2020400,000 Community Internet Access Points Wi-fi in 2.5 lakh schools, all colleges; Public wi-fi focal points for residents Digital Inclusion:

Table 2. India’s rank as per United Nations E-government Survey

Sl. No.	Year	Rank	EGDI Composite Score
01	2022	105th	0.5883
02	2020	100th	0.5964
03	2018	96th	0.5669
05	2016	107th	0.4637
05	2014	118th	0.3834

1.7 Cr prepared for IT, Telecom and Electronics Jobs.

Work formation: Direct 1.7 Cr. also, unintended no less than 8.5 Cr. e-Governance and eServices: Cross-way’s administration. Further, Table 2 depicts the India’s rank as per United Nations E-government Survey, where number of participating countries were 193 [11].

The kind of progress that the state has made is surely going to lead it to be pioneer in IT usage in services health, instruction, investment Digitally engaged nationals’ public cloud, web admission.

According to the expert’s analysis, the advancement of India has the potential to contribute an estimated \$1 trillion to its Gross Domestic Product (GDP) by the year 2025. Based on the data presented in the World Bank research, it is evident that a 10% increase in mobile and broadband penetration leads to a comparable rise in per capita GDP of 0.81% and 1.31% respectively in emerging economies. A total of 12,000 provincial mailing station branches have been naturally connected. The proliferation of electronic exchanges has been closely linked to the implementation of

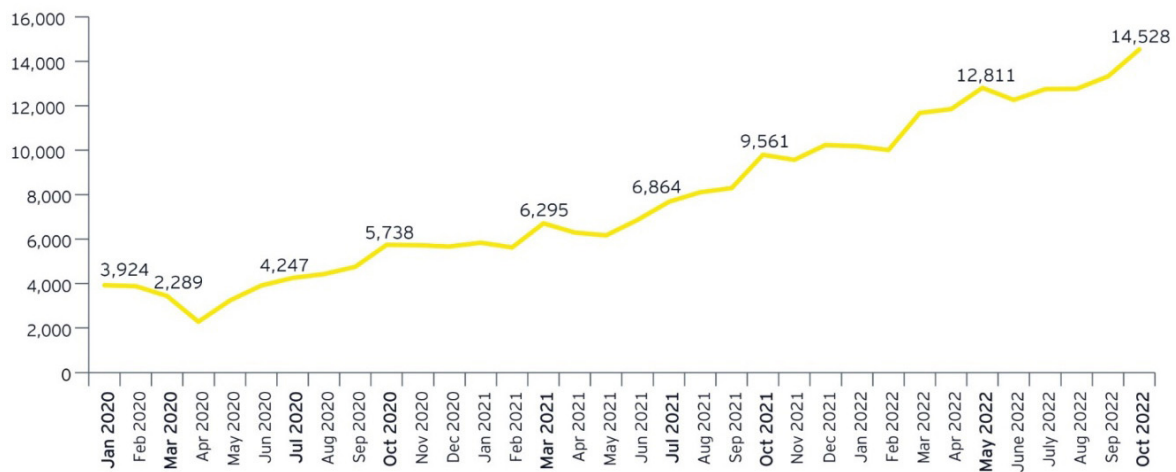


Figure 3. Digital payment trends in India [12].

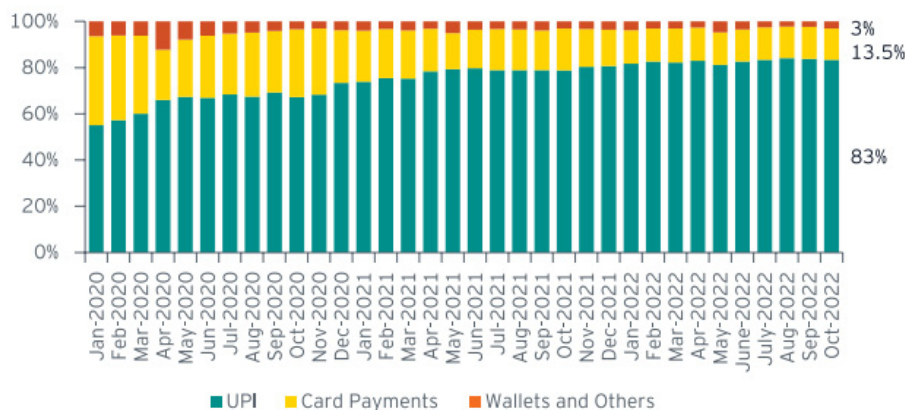


Figure 4. Digital payment trends - Share of different segments in total digital retail payments [12].

e-administration, with estimates suggesting that the number of mobile phones in India exceeds 1 billion. The Bharat Net program has established an optical fiber network spanning a distance of 2,74,246 kilometers, which is connected to over 1.15 lakh Gram Panchayats. Additionally, Figure 3 illustrates the digital payment trends in India, while Figure 4 depicts the distribution of different categories in the overall digital retail payments.

Common Service Center (CSC)

Challenges of Digital Economy

The sluggish carry out of Wi-Fi areas of internet and the sluggish speed, in contrast with other created countries. By and large little and medium scale industry is feeling the squeeze to change in accordance with present day innovation. Beginning level cell phones or mobiles have restricted capacities or store-rooms for smooth talented labor in computerized innovation. Absence of client data or schooling, mindfulness, and there are fractional administrations to prepare individuals. India needs north of 1,000,000 network protection trend-setter or information specialists to check and screen the developing hazard of advanced wrongdoing.

Analysis and Findings

Advanced proficiency is the initial phase in engaging residents.

Residents ought to perceive how to get their web-based security information or data.

To make this program award fruitful, gigantic mindfulness program must be led.

There is a squeezing need to instruct and illuminate the residents, particularly in provincial and far off regions, about the advantages of internet providers to expand the development of web utilization.

The computerized partition should be tended to and the confidential area.

Fabricating content isn't the administration's asset. This assignment needs content and administrations organizations with telecom organizations and different firms.

Check Protection Program (PPP) models should be investigated for the maintainable advancement of computerized foundation.

The outcome of a computerized India project relies on most extreme network with least digital protection chances.

To further develop abilities in network protection, we really want to present network protection courses at the alumni level and urge worldwide affirmation bodies to present different expertise based digital protection courses.

Conclusion

The evolving trajectory in the digital landscape of Chhattisgarh state is expected to generate a significant number of employment opportunities in the fields of Information Technology, Telecommunications, and Electronics, both directly and indirectly. The implementation of this initiative would facilitate India's digital transformation and position it as a leading adopter of information technology in the delivery of services across several sectors such as healthcare, education, agriculture, banking, and more. The Digital India initiative serves as the foundation for a digital revolution, which, if implemented effectively, will create numerous opportunities and avenues for the citizens of the nation. By leveraging the several aforementioned strategies, India is poised to achieve significant global prominence in areas such as IT revolution, e-Governance, e-education, e-healthcare, and e-banking. The potential of Indian institutions to make a lasting effect on the world is substantial. From

this standpoint, international organizations worldwide are eager to invest in India's modernization initiative. Remarkably, prominent global investors such as Mr. Sundar Pichai, Mr. Satya Nadella, and Mr. Elon Musk have demonstrated significant dedication to advancing services, infrastructure, empowerment, e-governance, and other related areas.

References

- [1] PM Modi Scheme [Online], 2023. Available at: <https://pmmodischeme.in/tuhar-sarkar-tuhar-dwar-yojana> [Accessed 24/04/2023].
- [2] J. Dashora, *Digital India: Limitations and Opportunities*. International Journal of Advance Research and Innovative Ideas in Education. 3(3) (2017), pp. 1592-1603.
- [3] S. Dutta, *Digital Business: Anew Customer-Savvy Business platform for Indian Banking & Retail Sectors-Issue & Challenges*. Indian Journal of Management Science. 5(1) (2015), pp. 43-49.
- [4] Digital India, Unlocking the trillion Dollar Opportunity: ASSOCHAM-Deloitte report [Online], November 2016. Available at: www.assochem.org [Accessed 13/05/2023].
- [5] G. Neeru and A. Kirandeeep, *Digital India: A Roadmap for the development of Rural India*. International Journal of Business Management. (2)2 (2015), pp. 1333-1342.
- [6] K. Kaushik, A. Bhardwaj, M. Kumar, S.K. Gupta, and A. Gupta, *A Novel Machine Learning-Based Framework for Detecting Fake Instagram Profiles*. Concurrency and Computation: Practice and Experience, Wiley. 34(28) (2022), pp. 01-12.
- [7] K.P. Kim and T. Connolly, *Stefan Ryschka, Abdollah Dosky and Alexander Stefanopoulos*. The implication of digital twin technology toward improving the perception of modular houses in Australia. International Journal of Sustainable Building Technology and Urban Development. 14(2) (2023), pp. 285-296. DOI: 10.22712/susb.20230021.
- [8] A. Gupta, S.K. Gupta, M. Rashid, A. Khan, and M. Manjul, *Unmanned aerial vehicles integrated HetNet for smart dense urban area*. Transactions on Emerging Telecommunications Technologies, Wiley. 33(10) (2020), pp. 1-22. DOI: <https://doi.org/10.1002/ett.4123>
- [9] V. Magotra, S. Khanna, S.K. Gupta, Z. Vakil, M. Najim, and R. Dwivedi, *Electronic Control Unit based Stolen Vehicle Tracking System*. Journal of Nano- and Electronic Physics. 14 (3) (2022), pp. 3011-1-3011-5. DOI: 10.21272/jnep.14(3).03011.
- [10] A. Mishra and S.K.Gupta, *Intelligent Classification of Coal Seams Using Spontaneous Combustion Susceptibility in IoT Paradigm*. International Journal of Coal Preparation and Utilization. Taylor & Francis. (2023), pp. 1-23.
- [11] J. James, *Recons truing the digital divide from the perspective of a large poor, developing country*. Journal of Information Technology. 19 (2004), pp. 172-177.
- [12] F. Al Khalifa, *An approach to define smart sustainable urbanism locally through expert's perspective*. International Journal of Sustainable Building Technology and Urban Development. 12(1) (2021), pp. 14-26. DOI: 10.22712/susb.20210003.
- [13] J.J. Mistry, *A Conceptual Framework for the Role of Government in Bridging the Digital Divide*. Journal of Global Information Technology Management, 8(3) (2005), pp. 28-46.
- [14] K. Nikam, A.C. Ganesh, and M. Tamizhchelvan, *The changing face of India. Part I: Bridging the digital divide*. Library Review. 53(4) (2004), pp. 213-219.
- [15] A. Alsharif, K. Aggarwal, M. Kumar, and A. Mishra, *Review of ML and AutoML solutions to forecast timeseries data*. Archives of Computational Methods in Engineering. 29(7) (2022), pp. 5297-5311. DOI: <https://doi.org/10.1007/s11831-022-09765-0>.
- [16] J. Kim, *Examining the significance and scope of form generation in digital design through boolean operations: A Case study of contemporary buildings post-2000*. International Journal of Sustainable Building Technology and Urban Development. 14(1)(2023), pp. 111-127. DOI: 10.22712/susb.20230009.
- [17] Why cyber security is important for Digital India [Online], 2023. Available at: <http://www.firstpost.com/business/why-cyber-security-is-important-for-digital-india-2424380.html> [Accessed 13/05/2023].
- [18] S. Yang and H. Kim, *Urban digital twin applications as a virtual platform of smart city*. International Journal of Sustainable Building Technology and Urban Development. 12(4) (2021), pp. 363-379. DOI: 10.22712/susb.20210030.

- [19] Digital India Power of Empower [Online], 2023. Available at: www.digitalindia.gov.in [Accessed 21/07/2023].
- [20] E-Government Development Index (EGDI) under Global Indices [Online], 2023. Available at: <https://www.meity.gov.in/e-government-development-in-dex-egdi-under-global-indices> [Accessed 18/09/2023].
- [21] Digitalizing India: a force to reckon with [Online], 2023. Available at: https://www.ey.com/en_in/india-at-100/digitalizing-india-a-force-to-reckon-with [Accessed 18/09/2023].