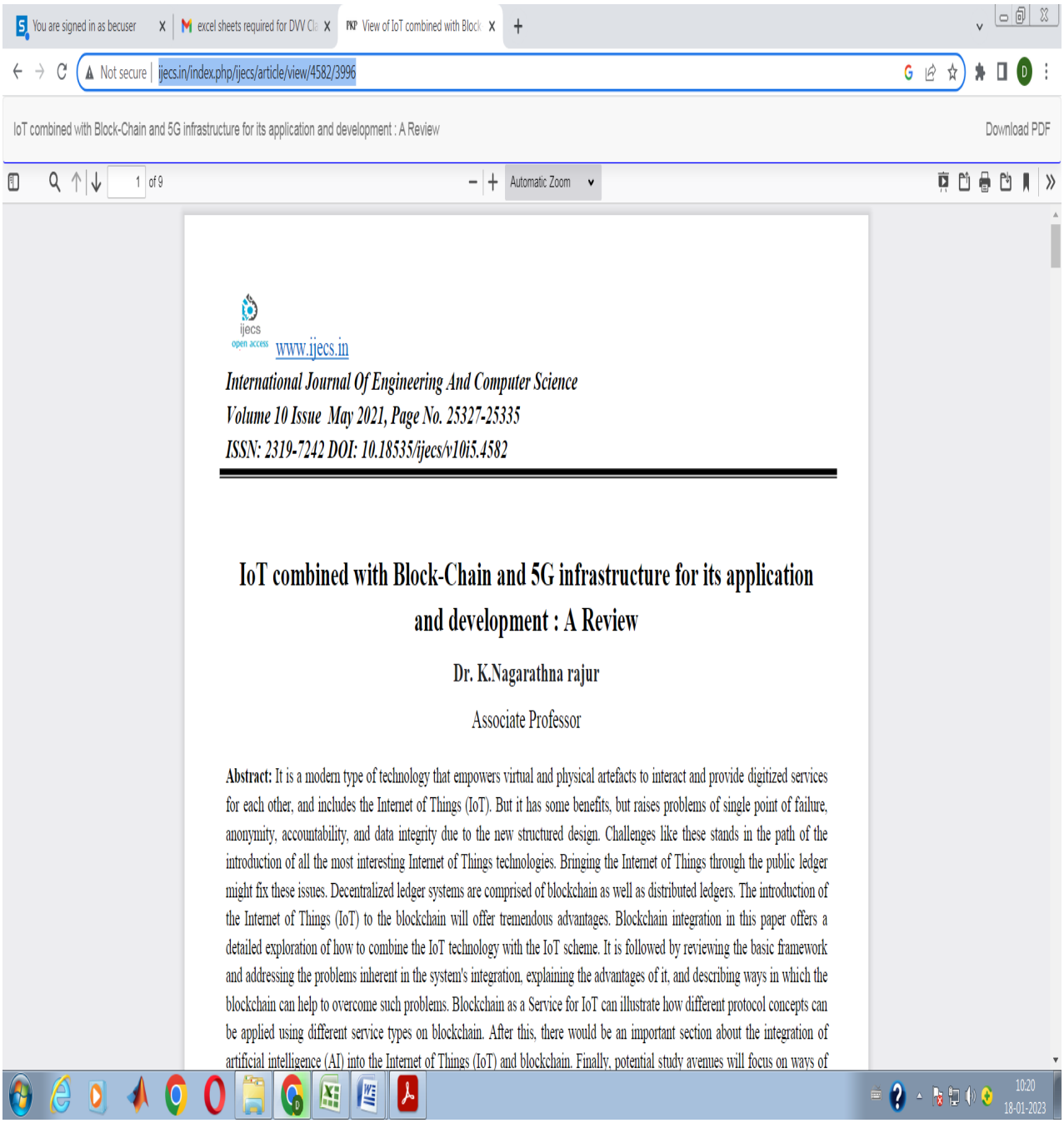
3.4.3 _3.4.3.1 Screenshots of research articles clearly showing the title of the article, affiliation, name of the journal, year and authors name if the links and DOI number are not available.

Sl. No and Year of Publication	Title of paper	Name of the author/s	Name of journal	ISSN number	Link to the recognition in UGC enlistment of the Journal
1. 2021	IOT Combined with Block-Chain and 5G infrastructure for its application and development Review"	K. Nagarathna	International Journal Of Engineering And Computer Science (ijecs)	2319-7242	DOI : 10.18535/ijsrm



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International Journal Of Engineering And Computer Science
Volume 10 Issue May 2021, Page No. 25327-25335
ISSN: 2319-7242 DOI: 10.18535/ijecs/v10i5.4582

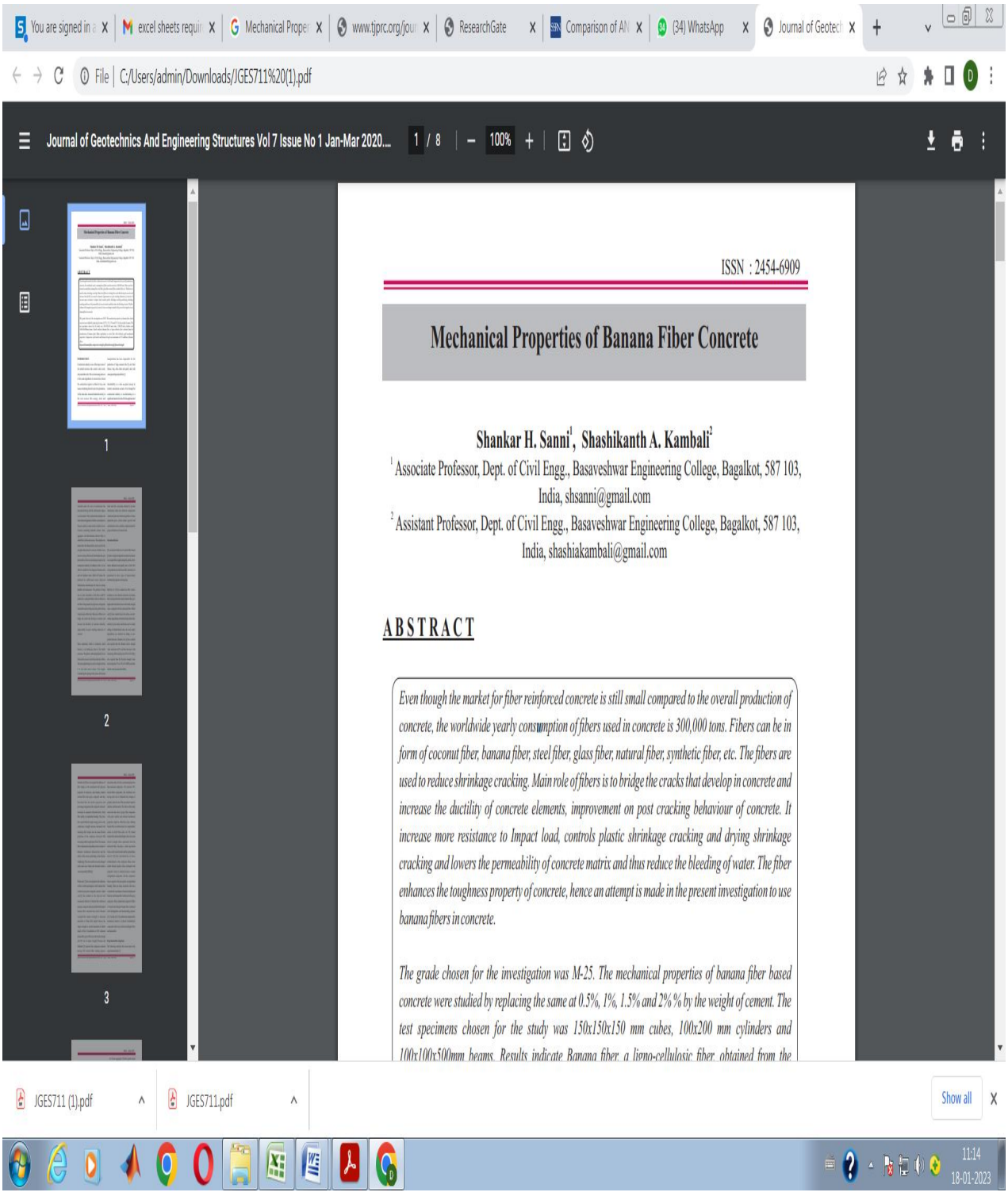
IoT combined with Block-Chain and 5G infrastructure for its application and development : A Review

Dr. K.Nagarathna rajur

Associate Professor

Abstract: It is a modern type of technology that empowers virtual and physical artefacts to interact and provide digitized services for each other, and includes the Internet of Things (IoT). But it has some benefits, but raises problems of single point of failure, anonymity, accountability, and data integrity due to the new structured design. Challenges like these stands in the path of the introduction of all the most interesting Internet of Things technologies. Bringing the Internet of Things through the public ledger might fix these issues. Decentralized ledger systems are comprised of blockchain as well as distributed ledgers. The introduction of the Internet of Things (IoT) to the blockchain will offer tremendous advantages. Blockchain integration in this paper offers a detailed exploration of how to combine the IoT technology with the IoT scheme. It is followed by reviewing the basic framework and addressing the problems inherent in the system's integration, explaining the advantages of it, and describing ways in which the blockchain can help to overcome such problems. Blockchain as a Service for IoT can illustrate how different protocol concepts can be applied using different service types on blockchain. After this, there would be an important section about the integration of artificial intelligence (AI) into the Internet of Things (IoT) and blockchain. Finally, potential study avenues will focus on ways of

2. 2020	Mechanical Properties of Banana Fiber Concrete	Prof. S. A. Kambali	Journal of Geotechnical and Engineering Structures(JGES)	2230-7605



ISSN : 2454-6909

Mechanical Properties of Banana Fiber Concrete

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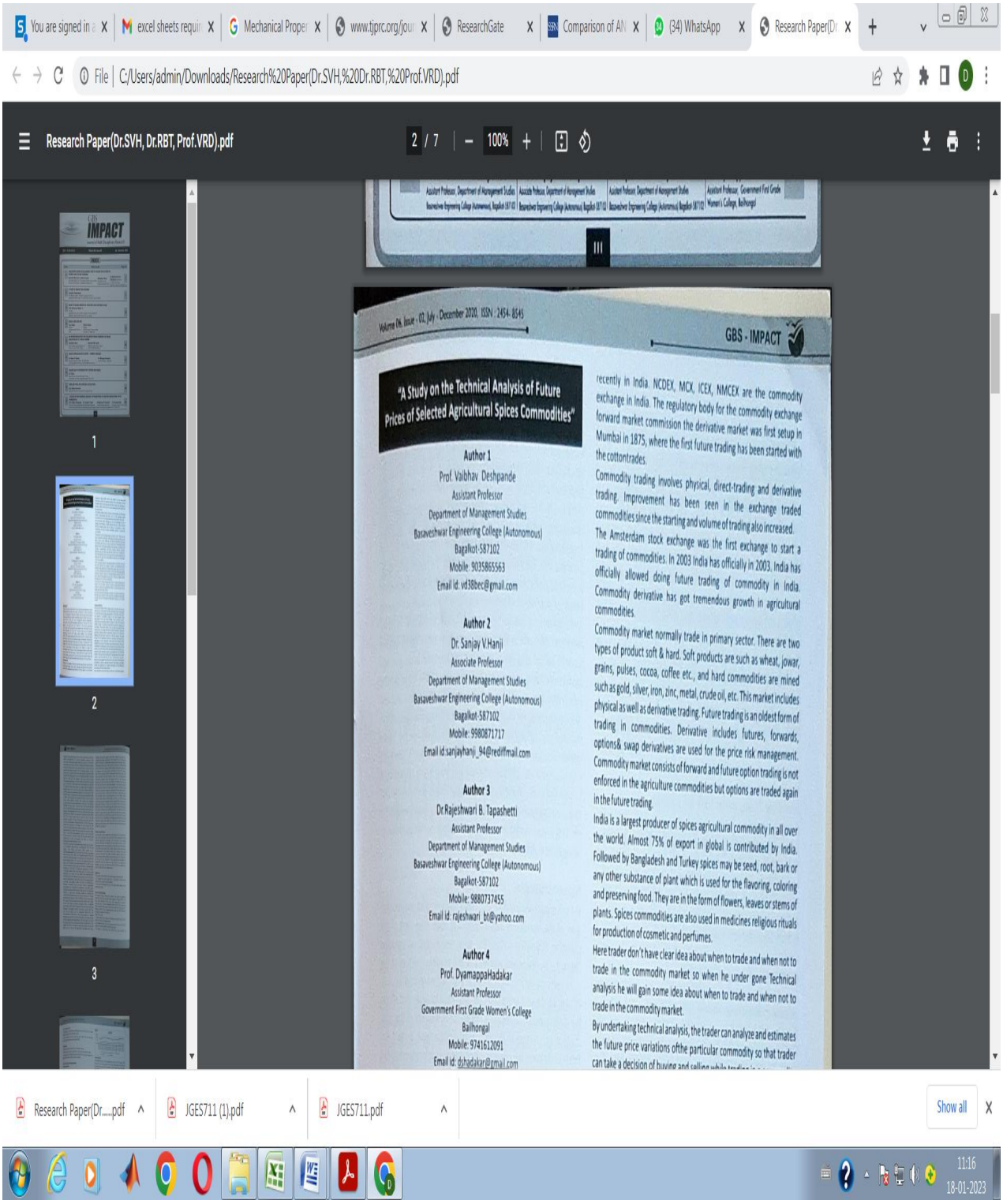
ABSTRACT

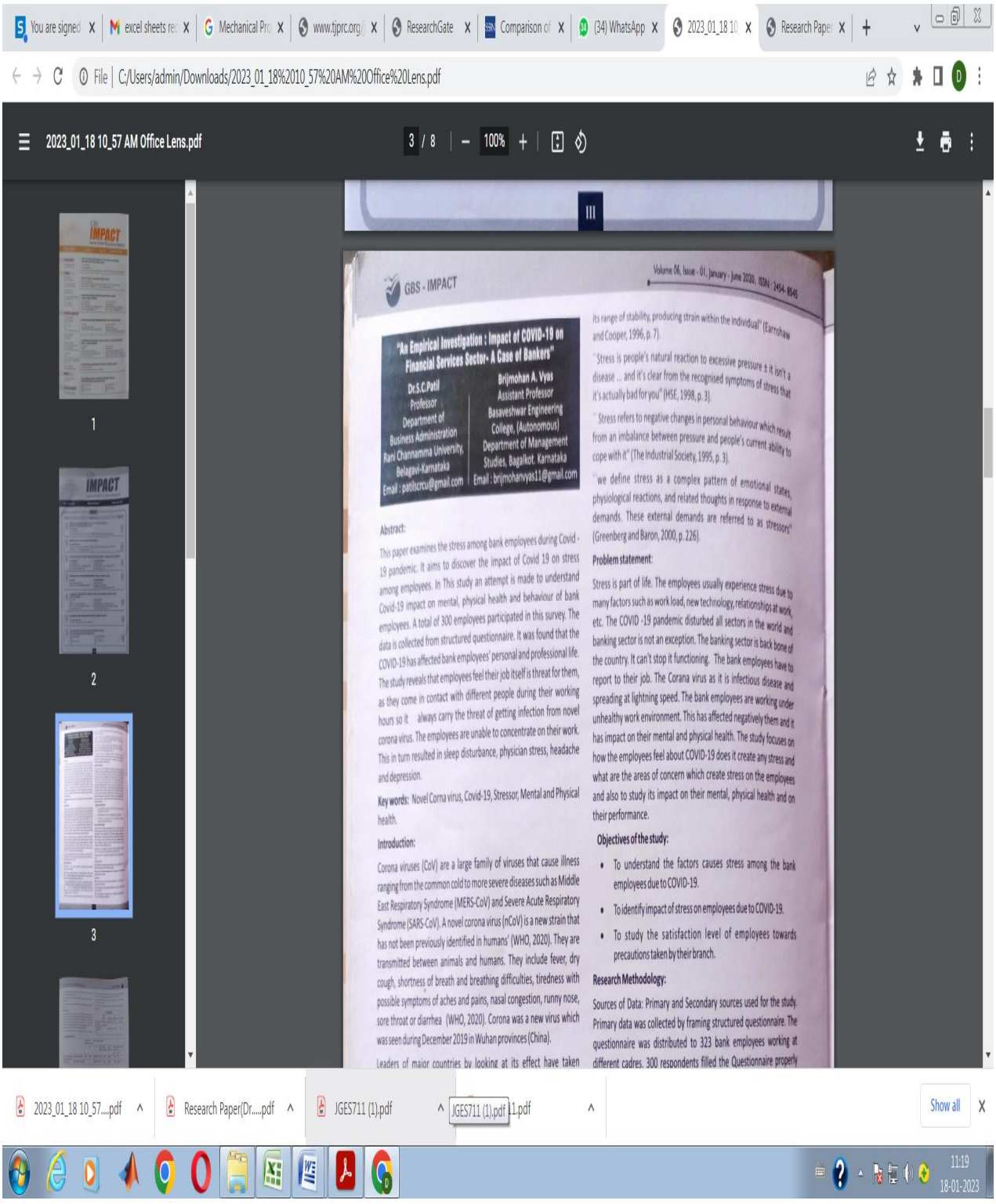
Even though the market for fiber reinforced concrete is still small compared to the overall production of concrete, the worldwide yearly consumption of fibers used in concrete is 300,000 tons. Fibers can be in form of coconut fiber, banana fiber, steel fiber, glass fiber, natural fiber, synthetic fiber, etc. The fibers are used to reduce shrinkage cracking. Main role of fibers is to bridge the cracks that develop in concrete and increase the ductility of concrete elements, improvement on post cracking behaviour of concrete. It increase more resistance to Impact load, controls plastic shrinkage cracking and drying shrinkage cracking and lowers the permeability of concrete matrix and thus reduce the bleeding of water. The fiber enhances the toughness property of concrete, hence an attempt is made in the present investigation to use banana fibers in concrete.

The grade chosen for the investigation was M-25. The mechanical properties of banana fiber based concrete were studied by replacing the same at 0.5%, 1%, 1.5% and 2% % by the weight of cement. The test specimens chosen for the study was 150x150x150 mm cubes, 100x200 mm cylinders and 100x100x500mm beams. Results indicate Banana fiber, a ligno-cellulosic fiber, obtained from the

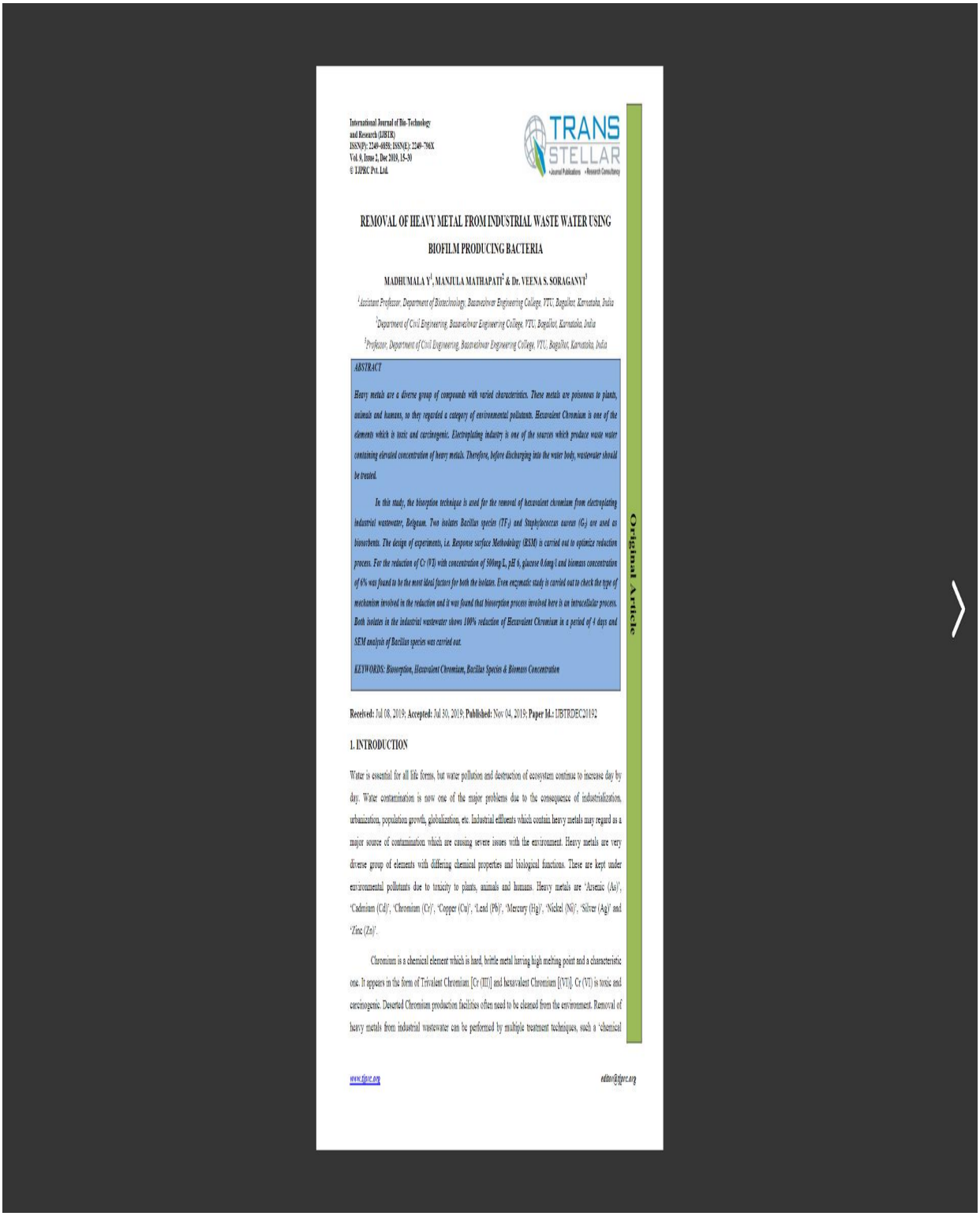
.3 2020	A Study on the Technical Analysis of Future Prices of selected Agricultural Spices Commodities	V.Hanji, S.V.,Vaibhav Deshpande, Tapashetti, R.B., &Hadakar, D.S.	GBS Impact Journal of Multi-Disciplinary Research	2454-854



4. 2020	An Empirical Investigation: "Impact of Covid-19 on Financial Services Sector-A Case of Bankers	Patil.S.C. & Vyas ,B.A	GBS Impact Journal of Multi Disciplinary Research	2088-8708



5. 2019	Removal of heavy metal from industrial waste water using biofilm producing bacteria	Madhumala Y, Manjula Mathapati and Dr. Veena S. Soraganvi	International Journal of Bio-Technology and Research	2249-6858



International Journal of Bio-Technology and Research (IJBTR)
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Original Article

REMOVAL OF HEAVY METAL FROM INDUSTRIAL WASTE WATER USING BIOFILM PRODUCING BACTERIA

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ABSTRACT

Heavy metals are a diverse group of compounds with varied characteristics. These metals are poisonous to plants, animals and humans, so they regarded a category of environmental pollutants. Hexavalent Chromium is one of the elements which is toxic and carcinogenic. Electroplating industry is one of the sources which produce waste water containing elevated concentration of heavy metals. Therefore, before discharging into the water body, wastewater should be treated.

In this study, the biosorption technique is used for the removal of hexavalent chromium from electroplating industrial wastewater, Belgaum. Two isolates Bacillus species (TF1) and Staphylococcus aureus (G1) are used as biosorbents. The design of experiments, i.e. Response surface Methodology (RSM) is carried out to optimize reduction process. For the reduction of Cr (VI) with concentration of 500mg/L, pH 6, glucose 0.6mg/l and biomass concentration of 6% was found to be the most ideal factors for both the isolates. Even enzymatic study is carried out to check the type of mechanism involved in the reduction and it was found that biosorption process involved here is an intracellular process. Both isolates in the industrial wastewater shows 100% reduction of Hexavalent Chromium in a period of 4 days and SEM analysis of Bacillus species was carried out.

KEYWORDS: Biosorption, Hexavalent Chromium, Bacillus Species & Biomass Concentration

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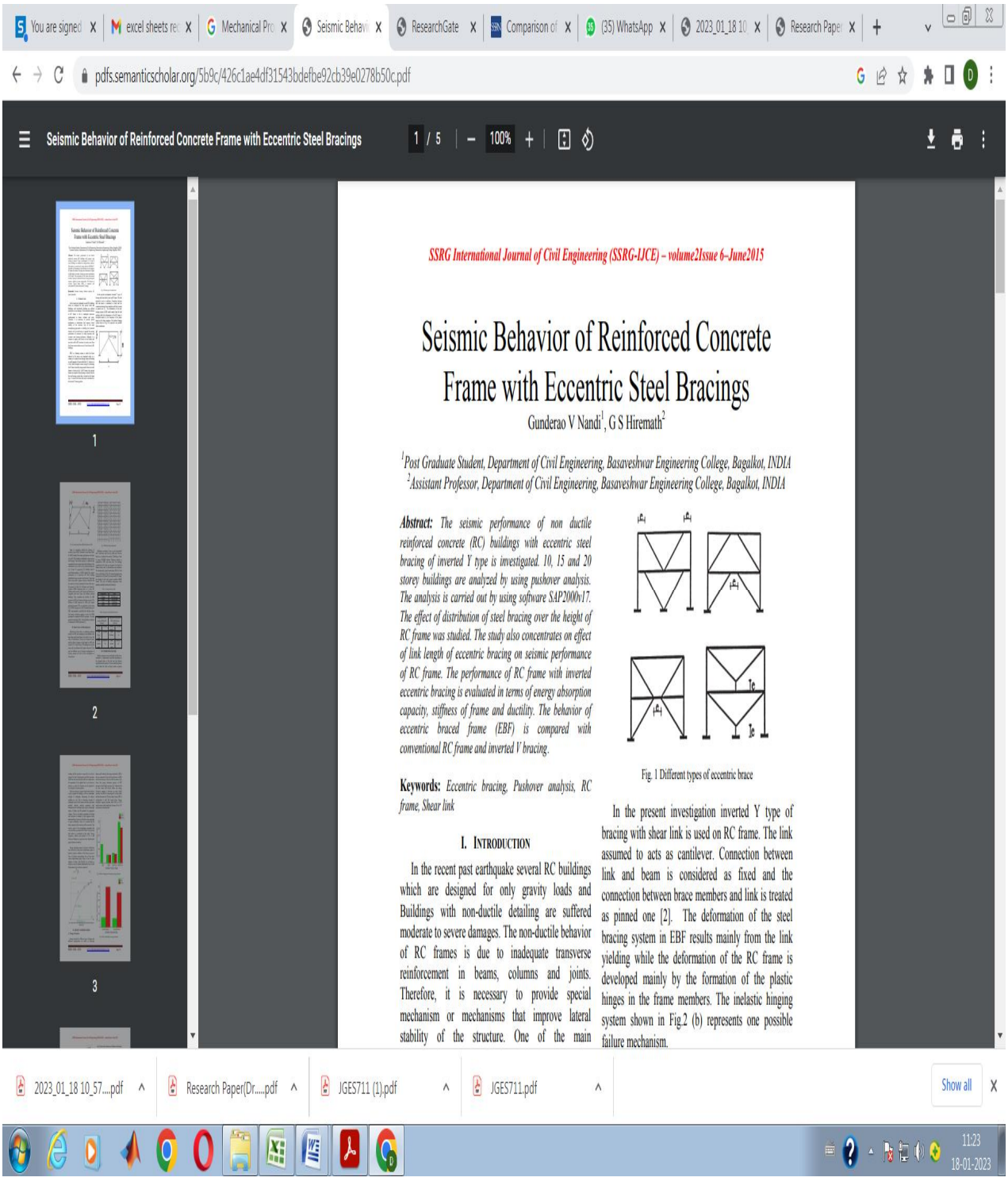
1. INTRODUCTION

Water is essential for all life forms, but water pollution and destruction of ecosystem continue to increase day by day. Water contamination is now one of the major problems due to the consequence of industrialization, urbanization, population growth, globalization, etc. Industrial effluents which contain heavy metals may regard as a major source of contamination which are causing severe issues with the environment. Heavy metals are very diverse group of elements with differing chemical properties and biological functions. These are kept under environmental pollutants due to toxicity to plants, animals and humans. Heavy metals are 'Arsenic (As)', 'Cadmium (Cd)', 'Chromium (Cr)', 'Copper (Cu)', 'Lead (Pb)', 'Mercury (Hg)', 'Nickel (Ni)', 'Silver (Ag)' and 'Zinc (Zn)'.

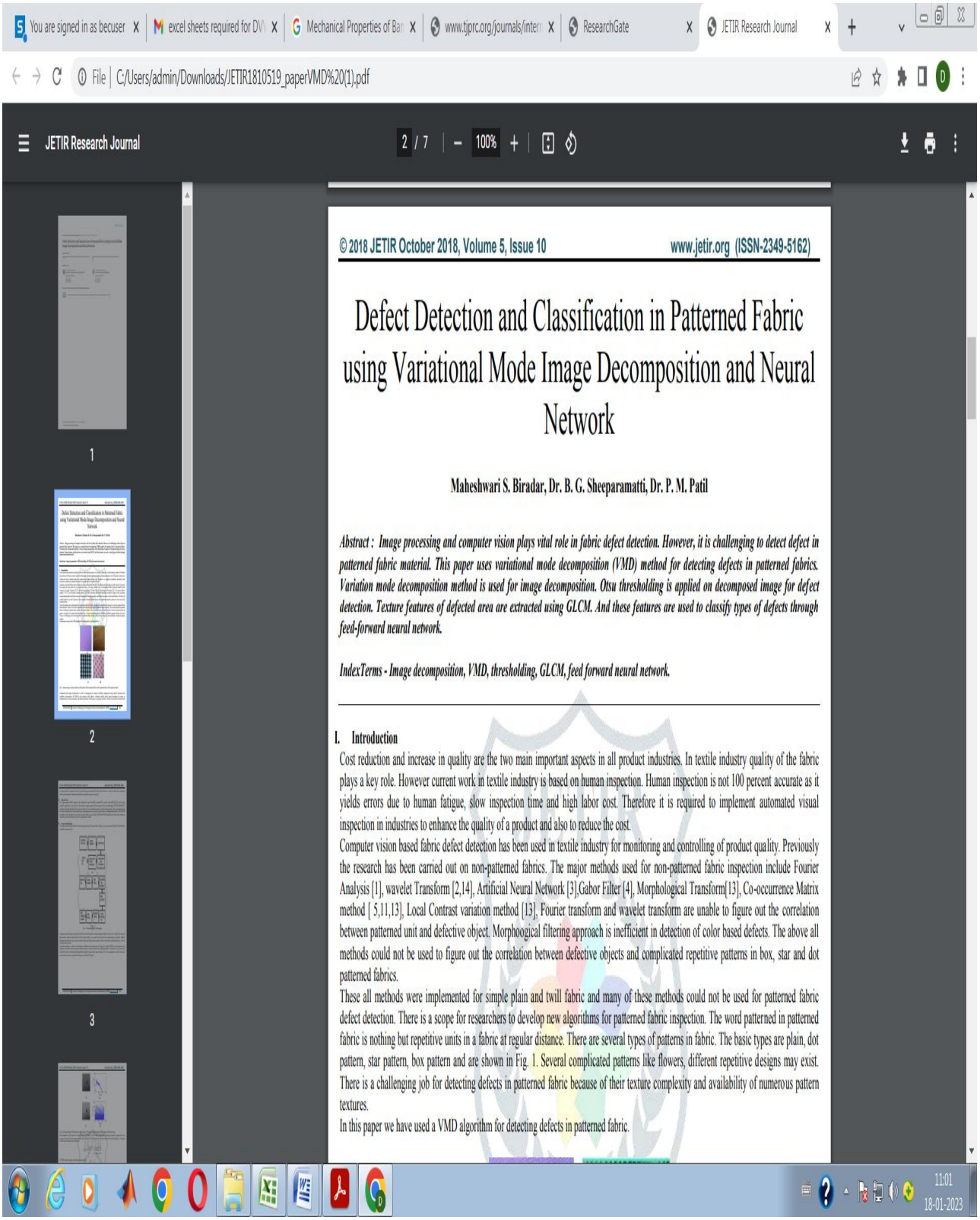
Chromium is a chemical element which is hard, brittle metal having high melting point and a characteristic one. It appears in the form of Trivalent Chromium [Cr (III)] and hexavalent Chromium [(VI)]. Cr (VI) is toxic and carcinogenic. Deserted Chromium production facilities often need to be cleaned from the environment. Removal of heavy metals from industrial wastewater can be performed by multiple treatment techniques, such a 'chemical

6. 2018	Seismic Behavior of Reinforced Concrete Frame With Eccentric Steel Bracings	Prof. G. S. Hiremath	SSRG International Journal of Civil Engineering	2348 - 8352	10.14445/23488352/IJCE-V2I6P108

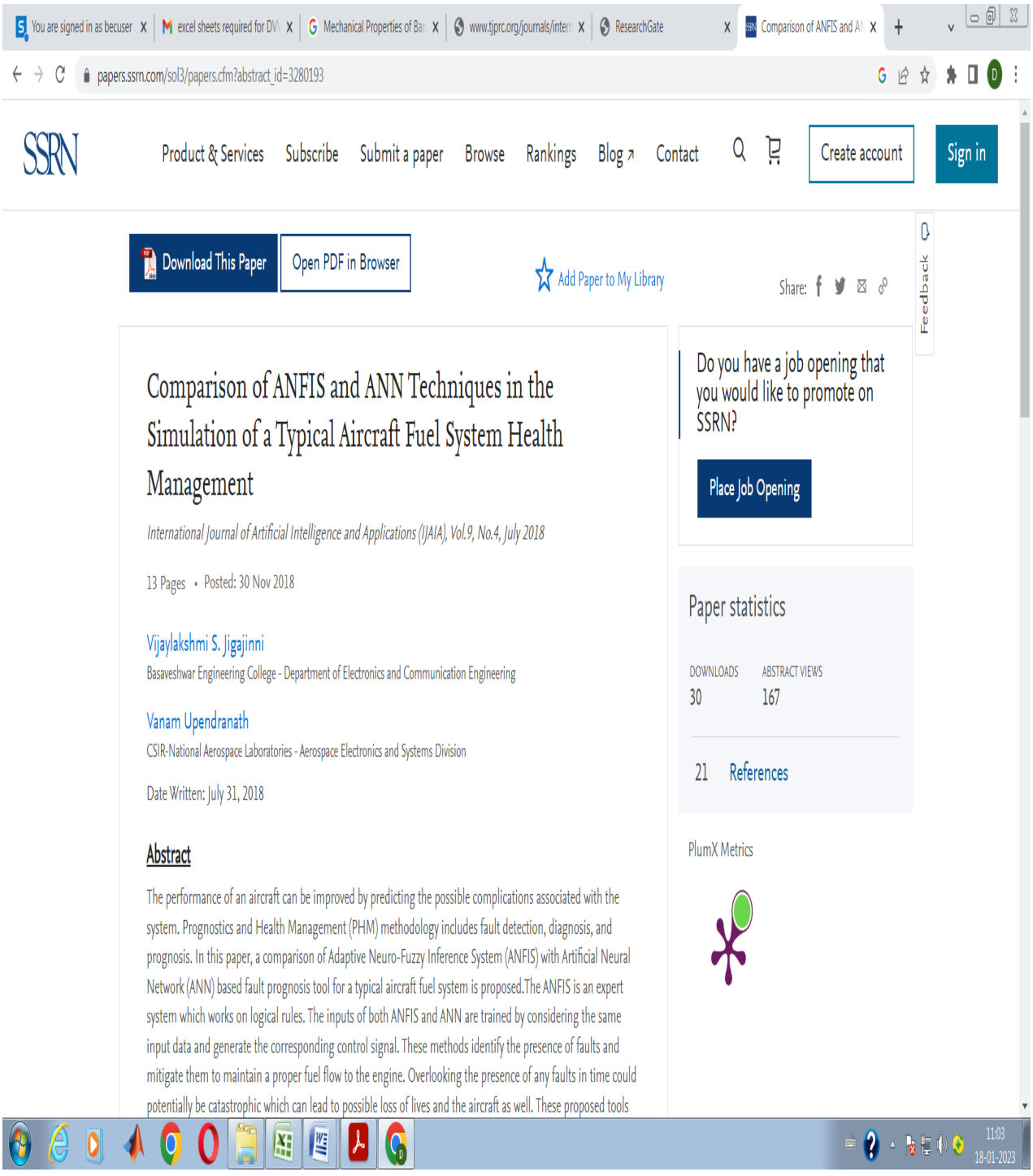


7. 2018	Multi-objective Design Optimization of Microdisk Resonator”	B.G. Sheeparamatti	Journal of Nanoscience and Nanotechnology-Asia	0975-8887

8. 2018	Defect Detection and Classification in Patterned Fabric using Variational Mode Image Decomposition and Neural Network	B.G. Sheeparamatti	Journal Emerging Technologies & Innovative research,	2349-5162



9. 2018	Comparison of ANFIS and ANN techniques in the simulation of a typical aircraft fuel system health management	Vijaylakshmi S. Jigajinni	Int. J of Artificial Intelligence and Applications (IJAIA	2321-9653	SSRN: https://ssrn.com/abstract=3280193



10. 2018	Defending against eavesdropping attack in wsns: a co- operative beam forming & jamming approach	Somu P. Parande	International journal of advanced computational engineering and networking	2349 - 3585	http://iraj.in

International Journal of Advanced Computational Engineering and Networking, ISSN(p): 2320-2106, ISSN(e): 2321-2063
Volume-6, Issue-10, Oct.-2018, http://iraj.in

DEFENDING AGAINST EAVESDROPPING ATTACK IN WSNS: A CO-OPERATIVE BEAM FORMING & JAMMING APPROACH

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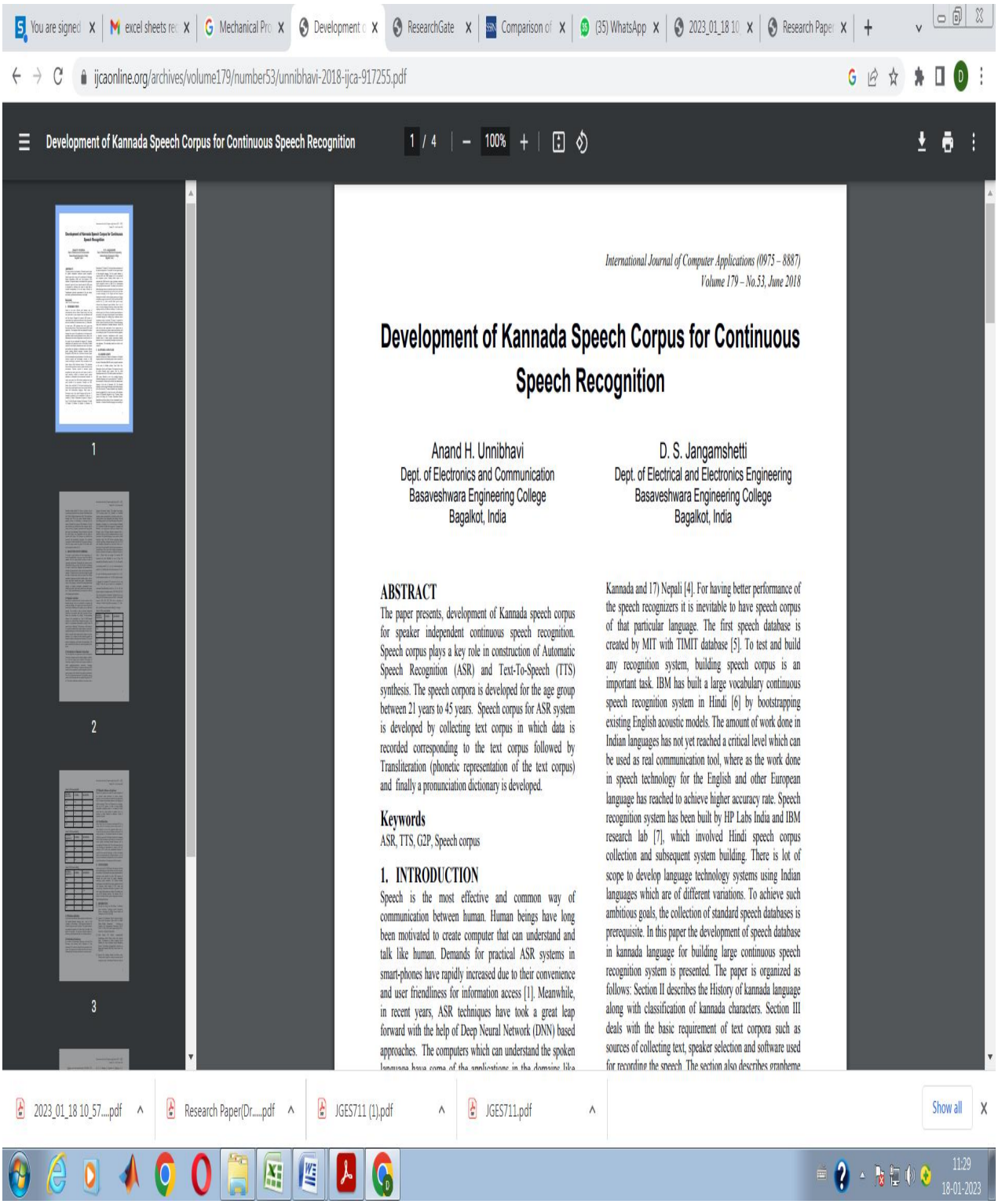
Abstract - Security at physical layer in Wireless Sensor Networks (WSNs), where each node has single antenna. To form a architecture of MIMO communication system, the sensor node support at each cluster of the network. Here we propose Co-operative Beam forming & Jamming (CBJ) approach to enhance the security of WSNs. In network some part of sensor nodes at transmitter (Alice) side are used to transmit beam forming signal to receiver (Bob). In same network, some of sensor nodes at bob side are used to create artificial noise (AN) to jam the Eavesdropper (Eve).

Keywords - Artificial Noise; Beam forming; Jamming

I. INTRODUCTION

WSNs gives the information possession and also in monitoring the environment, industry automation and in military for battlefield verification etc, for all these various application the WSN gives the solution to process it. Usually these sensor networks are mostly used to improve reliability, throughput of the system equipped with only one antenna in the cooperative communication and the source node maybe the out of coverage from the destination. These sensor networks are vulnerable to wireless channel for the broadcasted signal in the wireless medium. So for this we used the some of the techniques called Cryptography, Steganography for the purpose of leakage of confidential information in the modern communication system. Although still we have the leakage of information problem. Hence it is necessary area along with their schemes Amplify-and-Forward(AF), Decode-and-Forward (DF) and also cooperative Jamming (CJ) where adopted the available all relays, either to resending the signal or to transmit the artificial noise to confuse the eavesdropper. We have two channels one is main/legitimate channel between the relay node and destination node, other one is the wiretap channel between the intermediate relay node and the eavesdropper. One thing we must have the perfect information about the channel. Furthermore some strategies we have to made for selecting the best relay nodes such that they can increase the secrecy capacity or outage likelihood for minimal secrecy. Depending on number of these best selection relay nodes or multiple antennas we can improve the security of the system at the same time selection of these many number of relays or multiple Antennas we have to

11. 2018	Development of Kannada Speech Corpus for Continuous Speech Recognition	Anand H. Unnibhavi	International Journal of Computer Applications	0975 – 8887



12. 2017	Overview of prime mineral content of Indian green leafy vegetables and a proposed non-invasive technical method of their estimation	Krishnamurthy Bhat	International Journal of Science and Research Development	2017	2321-0613	http://ijsrd.com/