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Issues and Opportunities Associated with E-waste in India

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Abstract

Progress in the field of information and communication has revolutionised the production and usage of electronic equipment exponentially increasing. These electronic equipments set fastly replaced with newer models due to the rapid technological advancements and production of newer and better electronic equipments. Faster up-gradation of electronic products is forcing the consumers to discard the old electronic products quickly, which in turn adds to the electronic waste (E-waste) to the solid waste stream. Today, E-waste become one of the fastest and biggest growing issues in India. The generation of E-waste, in various types of electronics goods, also a matter of concern because it contains many toxic and hazardous substances present. If these substances are not properly managed, they can have adverse effects on the environment. Consumers are the primary keys to the better management of E-waste and producers are the secondary ones. Initiatives such as extended producer responsibility (EPR), creating environment and awareness for reduce, reuse, recycle, and technology-based platform for linking the market which facilitate a circular economy are in their initial stages. The aim to encourage consumers to correctly dispose of their E-waste, with increased reuse and recycling rates, and adopt sustainable consumer habits must be the top priority to manage the E-waste. Therefore, a strong need to adopt sustainability practices to tackle these growing threats of E-waste is realised. This work is based on secondary data which study the E-waste composition and various hazardous materials found in the E-waste. It also focuses on the issues, implications, and opportunities of E-waste management in India.

Keywords: E-waste Management, Hazardous Substances, Implications, Opportunities

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A COMPARATIVE STUDY OF 1G TO 5G GENERATIONS IN THE WIRELESS MOBILE TECHNOLOGY: A REVIEW

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Abstract:

The wireless communication is one of the most active thrust areas of technology development of this modern era. This development starts primarily from the transformation of voice telephony into other supporting services such as the transmission of video, images, text and data. The wireless mobile communication system revolutionized the way people communicate, connecting together by communications and mobility. This communication is the most thrust areas with advanced techniques. This area is developing very fast and deals with all the fields of mobile and wireless communications. Evolution of wireless access technologies is about to reach its fifth generation. Looking past wireless communication access technologies have followed different evolutionary paths aim is to provide excellent performance and efficiency in high mobile environment. The first generation was refereed as cellular and which was later abbreviated to cell. The cell phone signals were analog in nature. The first generation device was comparatively less heavy and expensive. It has fulfilled the basic mobile voice. The second-generation mobile phones used Global System for Mobile communications (GSM) technology. The GSM uses digital modulation and it improves voice quality with limited data service. The second generation has introduced the capacity and coverage. The third generation allowed mobile telephone customers to use voice, graphics and video applications. This has quest for data at higher speeds to open the gates for truly mobile broadband experience. The fourth generation is for cell phones or handheld devices, which provides the access to wide range of telecommunication advanced mobile services supported by mobile and fixed networks. It is packet-based service along with a support for low to high mobility applications in accordance with service demands in multiuser environment. The fifth generation wireless development is based upon 4G, which at present is struggling to meet its performance goals. The most important advantage of 5G network is providing myriads of services to end users. The importance of this

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Environmental and Health Issues Related to E-waste Management in India

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Abstract

It is estimated that two-thirds of the world's population is still offline. Therefore, there is a need to provide affordable access to the internet for all. In an approach to bridge this digital divide, it is necessary to get affordable, equitable, and quality access to information and communication technology (ICT). At the same time, there is tremendous growth in the use of ICT-based devices and services. This faster change in technology and frequent innovations in the ICT sector has left the world with a threat of deterioration in environmental conditions and human health. This waste of electronic and electrical equipment, which contains hazardous components, is still handled in an environmentally unfriendly manner mainly in developing countries. This waste is informally known as E-waste. These wastes are electronic products that are near the end of their useful life. E-waste products contain materials that are hazardous to human beings, depending on their condition and density. The hazardous content of these materials poses a threat to human health as well as to the environment. This is a huge challenge for the countries to handle E-waste responsibly and protect the environment. To address this issue of E-waste management in a sustainable method, the concept of extended producer responsibility (EPR) will be useful. In India electronic waste is produced in a huge quantity due to the modernisation of lifestyle. Fridge, cell phones, discarded computers, laptops, tabs, mobiles, microwaves, air conditioners, batteries, etc., if they are not disposed of properly, they can leach, lead, and other substances to soil and underground water. In addition to the technical, social, and organisational aspects of the E-waste management system, it is crucial to consider the economic aspects, if the systems have to be made financially viable and sustainable along with being socially acceptable. In

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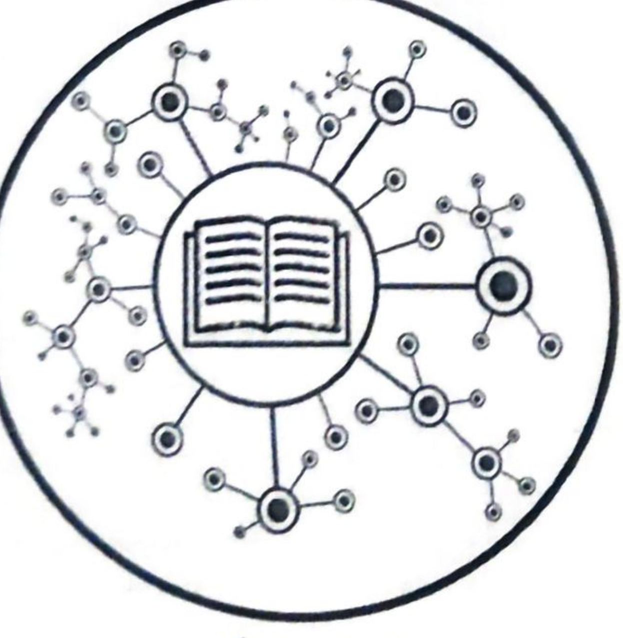

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DOCTORAL THESES IN ECONOMICS IN THE FORM OF DIGITAL REPOSITORY AT SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED: A STUDY

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Abstract :

Swami Ramanand Teerth Marathwada University, Nanded known for its outstanding educational quality and facilities at all levels in almost all the major disciplines of study. From the Maharashtra, twenty universities are imparting regular Economics education and two Universities are distance education, one of them is SRTMUN.The paper study covered 129 doctoral theses in Economics from Swami Ramanand Teerth Marathwada University, Nanded during 1997-2020. It has been used to analyse the research programs offered by Economics.This paper clearly project with relevant statistical tables the output of Department of Economics in SRTMUN for the past 24 Years.

Keywords:*Maharashtra,Swami Ramanand Teerth Marathwada University, Nanded, Economics, Ph. D. theses, Digital repository.*

1. Introduction:

Maharashtra is the third largest state in India, known for its outstanding educational quality and facilities at all levels in almost all the major disciplines of study. There are 36 districts in the state with best colleges and higher education institutions. We are moving ahead in all areas of developments and making massive investments in education to convert our younger population into globally competent human resources. From the Maharashtra, 53 universities out of these twenty universities are imparting regular Economics education and two Universities are distance education, one of them is Swami Ramanand Teerth Marathwada University, Nanded. It was established on September 17, 1994 by the Government of Maharashtra. The University caters to the southern part of the Marathwada region of Maharashtra covering four districts namely, Nanded, Latur, Parbhani and Hingoli. This university obtained 2(f) and 12(B) recognition of UGC and achieved recognition, name and fame at the state, national and international level in the area of academic, research and innovation and extension activities. NAAC accorded grade 'A' to University.The University has 14 Schools on campus, 4 schools at sub-campus, Latur and a sub-campus at Parbhani. The university attracts many foreign students due to its excellent facilities. It offers good accommodation facility. There is a provision of hostel for the students. University received financial assistance from RUSA, DST, UGC, etc. for development of academic infrastructure amenities, research and extension activities. Teachers have invented, patented and commercialized many ideas. Teachers have got research projects worth Rs. 12.5 crores, whose academic and social value is remarkable. Teachers and students

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३५ पूर्व खानदेशातील असहकार चळवळ : एक आढावा

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विसाव्या शतकाच्या दुसऱ्या दशकात भारताच्या स्वातंत्र्य चळवळीत एका नव्या वैचारिक प्रवाहाला सुरूवात झाली. महात्मा गांधींचा राष्ट्रीय राजकारणात उदय होऊन त्यांनी सत्य, अहिंसा, सत्याग्रह व असहकार ही नवी अस्त्रे भारतीय स्वातंत्र्य चळवळीला दिली. १९२० साली गांधीजींनी असहकार चळवळ सुरू करून एका नव्या पर्वाला सुरूवात केली.

महात्मा गांधींना सत्य व अहिंसेवर आधारित असहकार चळवळ सुरू करण्याचा निर्णय घेतला. असहकार म्हणजे सहकार्य न करणे. महात्मा गांधीजी म्हणतात, जगात अशी कोणतीही शक्ती नाही की, ती जनतेच्या सहकार्याशिवाय राज्य करू शकेल. ब्रिटिशांशी आपण प्रत्येक ठिकाणी सहकार्य नाकारले तर ब्रिटिशांना भारतात राज्य करणे अशक्य होईल. याप्रसंगी महात्मा गांधींनी एक महत्वाची घोषणा केली. भारतीय जनतेने जर ब्रिटिशांशी पूर्णपणे असहकार पुकारला, तर आपण भारताला एका वर्षात स्वराज्य मिळवून देऊ. एवढा आत्मविश्वास त्यांना आपल्या चळवळीबद्दल होता. ब्रिटिशांच्या अन्याय अत्याचारापासून सुटका करून घेण्यासाठी, त्यांच्या गुलामगिरीतून मुक्त होण्यासाठी असहकार चळवळ ही अतिशय महत्वाची चळवळ होती.

असहकार चळवळीवर चर्चा करण्यासाठी ४ सप्टेंबर १९२० रोजी कलकत्ता येथे लाला लजपतराय यांच्या अध्यक्षतेखाली राष्ट्रीय काँग्रेसचे खास अधिवेशन भरविण्यात आले. महात्मा गांधींच्या असहकार चळवळीस टिळकगटाचा विरोध होता. त्यांनी हा ठराव पास होऊ नये यासाठी बराच खटाटोप केला. महात्मा गांधींचा आपल्या धोरणावर विश्वास असल्याने शेवटी त्यांचा ठराव बहुमताने पास झाला व भारतात एका नवीन पर्वाला सुरूवात झाली.

कलकत्ता येथे भरलेल्या खास अधिवेशनात काँग्रेसने ब्रिटिशांविरूध्द असहकार आंदोलन सुरू करण्यास महात्मा गांधींना मान्यता मिळाली. असे असले, तरी या ठरावास काँग्रेसच्या वार्षिक अधिवेशनात मान्यता मिळणे आवश्यक होते. त्याप्रमाणे नागपूर येथे २६ व २७ डिसेंबर १९२० या दिवशी काँग्रेसच्या अधिवेशनात महात्मा गांधींच्या असहकार चळवळीचा ठराव बहुमताने पास करण्यात आला.

महात्मा गांधींना पाठिंबा जाहीर करुन पूर्व खानदेश जिल्हा काँग्रेस अध्यक्ष वासुदेव विठ्ठल दास्ताने यांनी ५ फेब्रुवारी १९२१ पासून भुसावळ कोर्टात सुरु असलेली आपली वकिली बंद केली.[१] त्यावेळी हिंदुस्थानात असलेल्या सुमारे १०००० वकिलांपैकी ३०० वकिलांनीही वकिली सोडली नाही. तर पूर्वखानदेशातील १०० वकिलांमध्ये केवळ वासुदेव दास्ताने यांनीच वकिली सोडलेली दिसून येते.[२] यांनी वकीली सोडली ती कायमची. पुन्हा न्यायालयात वकील म्हणून त्यांनी पाऊल ठेवले नाही.[३]

त्याच सुमारास भुसावळ येथे महात्मा गांधींची सभा झाली. सभेला प्रचंड गर्दी जमली होती. वासुदेव दास्ताने यांनी वकिली सोडली असली तरी वकिली पोषाखाच्या थाटात ते महात्मा गांधीजींजवळ बसले होते. महात्मा गांधींनी आपल्या भाषणात, आपण या निर्णयावर का व कसे आलो याबद्दल चर्चा केली एवढेच नव्हे तर व्यासपीठावर बसलेल्या वासुदेव दास्ताने यांच्या डोक्यावरील पगडी आपल्या हाताने उतरवून टेबलावर ठेवून त्यांना उद्देशून म्हणाले, 'अभी यह झिलमेली पगडी नहीं चलेगी,' तेव्हा वासुदेव दास्ताने यांनी क्षणाचाही विलंब न करता घोषणा केली की, महात्माजींनी दिलेली असहकाराची दीक्षा मला शिरोधार्य आहे व आपल्या वकिलीच्या त्यागाचा त्यांनी पुनरुच्चार केला. त्यावेळी त्यांची मासिक मिळकत १२०० ते १५०० रुपये होती. मात्र त्याचा त्यांनी विचार केला नाही. त्यानंतर वासुदेव दास्ताने यांनी आयुष्यभर साधा सदरा त्यावर उपरण्याची स्वच्छ घडी, धोतर व टोपी असा पेहराव धारण केला.[४]

भुसावळ येथे सर्व व्यापाऱ्यांनी परदेशी साखरेवर बहिष्कार घातला होता. बाजारातील सर्व साखर मुद्दल भावात खरेदी करून ती विक्रीकरिता मुंबई वगैरे ठिकाणी पाठविण्यात आली. साखरेवरील बहिष्कारात भुसावळ येथील मुसलमानी-कच्छी व्यापारीही सामील झाले होते.[५]

सा.प्रबोधचंद्रिकेच्या ३ ऑक्टोंबर १९२१ च्या वृत्तानुसार, एदलाबादच्या सर्व ब्राम्हणांनी मोरस साखर व चहा वापरणार नाहीत अशा शपथा घेतल्या. इतर ठिकाणच्या ब्राम्हणांपेक्षा एदलाबाद (मुक्ताईनगर)चे ब्राम्हण बरेच समजदार आहे. याचे अनुकरण सर्व ब्राम्हणांनी करावे अशा आशयाचे वृत्त आलेले दिसते.[६]

भुसावळ येथे प्रत्येक चळवळीला लोकांचा उत्स्फूर्त पाठिंबा मिळत असे. विलायती साखर तेथे खपत नसे. कारण तेथील व्यापारी विलायती साखर मागवतच नसत. तेथील व्यापारी कामजी शेट हे याबाबतीत लक्ष ठेवून असत.[७]

नोव्हेंबर महिन्याच्या दुसऱ्या आठवड्यात पूर्व खानदेशात बहुतेक ठिकाणी हरताळ पाळण्यात आला होता. त्यात प्रामुख्याने जळगाव, भुसावळ, चोपडा

Bhalod