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This is to certify that the QUALITY MANAGEMENT SYSTEM of

VIGILANCE DEPARTMENT MOIL LIMITED

MOIL Bhavan, 1 A, Katol Road, Nagpur - 440 013, Maharashtra, India.

has been assessed and registered as complying with the requirements of the following International Standard:

ISO 9001:2015

The Quality Management System applicable to:

Scope: To Provide Vigilance Services To The Management Of MOIL Limited.



Registration No. : RQ91/8614 Registered Date Reassessment Date: 05th August, 2020 Issue Date

Expiry Date

: 22nd May, 2014

: 20th August, 2020

: 21st May, 2023













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Validity of this certificate is based on periodic audits of the management system defined by the above scope and is contingent upon prompt, written notification of significant changes to the management system and/or its components thereof shall be immediately communicated to ICS.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2015 requirements may be obtained at www.icsasian.com



• संपादक-मंडल •

• मुख्य संपादक

श्री प्रदीप कामले

आई.आर.एस.एम.ई. मुख्य सतर्कता अधिकारी

संपादक

श्री मनोज तिवारी

उप-मुख्य सतर्कता अधिकारी

• संपादक सदस्य

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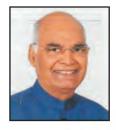
श्री लाखन तुरकर

श्रीमती मीना ड्रेजन

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MESSAGE

l am happy to know that the Central Vigilance Commission is observing Vigilance Awareness Week on the theme "Independent India @ 75: Self Reliance with integrity; स्वतंत्र भारत @ 75: सत्यिनष्ठा से आत्मिनर्भरता" from 26th October to 1st November 2021.

As a nation, we have had a long and well-established tradition of integrity and ethics. It is our responsibility as citizens to re-affirm these ideals as we strive towards national development and self-reliance. It is the duty of all the citizens to be vigilant and combat corruption in every sphere of life.

I am happy to see that the Central Vigilance Commission is taking the necessary steps to bring the citizens together to strengthen our commitment towards progress and self-reliance while remaining rooted in our ideals.

I extend my greetings to all those associated with the organization of Vigilance Awareness Week at Central Vigilance Commission and wish the campaign every success.

(Ram Nath Kovind)

2n konud

New Delhi October 05, 2021



भारत के उपराष्ट्रपति Vice-President of India



MESSAGE

I am pleased to learn that the Central Vigilance Commission is observing Vigilance Awareness Week this year from 26th October to 1st November, 2021.

The theme of this year's Vigilance Awareness week is "Independent India @ 75: Self Reliance with Integrity; स्वतंत्र भारत @ 75: सत्यनिष्ठा से आत्मनिर्भरता" which is in consonance with the journey that our country has had since its independence. A Self-reliant India is a dream for all her citizens and such a dream can only be fulfilled with the participation of all. I have faith that everyone would adopt integrity and ethics in their daily life as we move in our journey towards self-reliance.

I hope to see all citizens and stake holders collectively participate in large numbers in the fight against corruption. We need to come together to reiterate the ideals of integrity, transparency and accountability and strive towards embracing the values that have guided us in our journey so far.

On this occasion, I commend the Central Vigilance Commission for their efforts in combating corruption and convey my best wishes for the success of Vigilance Awareness Week, 2021.

(M. Venkaiah Naidu)

New Delhi 30th September, 2021



प्रधान मंत्री Prime Minister



संदेश

केन्द्रीय सतर्कता आयोग द्वारा 26 अक्टूबर से 01 नवंबर, 2021 तक सतर्कता जागरुकता सप्ताह के आयोजन के बारे में जानकर प्रसन्नता हुई।

भारत की विकास यात्रा में देश के नागरिकों की मेहनत, सजगता और समाज व राष्ट्र के प्रति जिम्मेदारी के भाव की भूमिका अहम है। जन-भागीदारी और सामूहिकता की शक्ति से ऊर्जित देश आज बड़े संकल्प लेता है और उन्हें हासिल भी करता है।

भारत का जन-सामर्थ्य पूरी दुनिया में एक नया विश्वास भर रहा है। इस सन्दर्भ में आयोग द्वारा सतर्कता जागरुकता सप्ताह के विषय के रूप में 'स्वतंत्र भारत @ 75: सत्यनिष्ठा से आत्मनिर्भरता' का चयन प्रशंसनीय है।

'सबका साथ, सबका विकास, सबका विश्वास, सबका प्रयास' के मंत्र के साथ देश गत 7 सालों से भ्रष्टाचार के खिलाफ जीरो टॉलरेंस की नीति के साथ तेजी से आगे बढ़ रहा है। समग्र और निरंतर प्रयासों से देश में एक विश्वास कायम हुआ है कि भ्रष्टाचार को रोकना संभव है।

आज समयानुकूल और शुचितापूर्ण व्यवस्थाएं लोगों की जिन्दगी को आसान बना रही हैं। देश के नागरिकों को सशक्त करने के लिए जिस तरह तकनीक और नागरिकों की सत्यनिष्ठा को ताकत बनाया गया है, उसने सामान्यजन का आत्मविश्वास और आत्मसम्मान बढ़ाया है।

आज देश में जो सरकार है, वह देश के नागरिकों पर भरोसा करती है। पारदर्शी और सहज व्यवस्थाओं के कारण देश के जन-जन में यह भरोसा भी कायम हुआ है कि अब भ्रष्टाचारी बच नहीं सकता।

आजादी के अमृतकाल में आत्मनिर्भर भारत के विराट संकल्पों की सिद्धि की तरफ देश बढ़ रहा है। अमृत काल में हम सभी को एक बात हमेशा याद रखनी है- राष्ट्र प्रथम। मुझे विश्वास है कि केन्द्रीय सतर्कता आयोग का यह आयोजन, एक बेहतर भविष्य के लिए जीवन में, विशेषकर सार्वजनिक जीवन में, सत्यनिष्ठा, पारदर्शिता और जवाबदेही को बढ़ावा देने में महत्वपूर्ण सिद्ध होगा।

केन्द्रीय सतर्कता आयोग को इस पहल और भविष्य के प्रयासों के लिए बहुत-बहुत शुभकामनाएं।

المنا فلك

नई दिल्ली कार्तिक 03, शक संवत् 1943 25 अक्टूबर, 2021

राम चन्द्र प्रसाद सिंह Ram Chandra Prasad Singh



इस्पात मंत्री मारत सरकार, नई दिल्ली Minister of Steel Government of India, New Delhi

संदेश



मुझे यह जानकर हर्ष है कि मॉयल लिमिटेड "सतर्कता जागरूकता सप्ताह-2021" के अवसर पर अपनी आंतरिक पत्रिका "शुचिता" का दसवां अंक प्रकाशित कर रहा है।

हम एक नए भारत के निर्माण के दृढ़ संकल्प के साथ आगे बढ़ रहे हैं, जो आत्मनिर्भर हो, एक ऐसा राष्ट्र जो लगातार अपनी क्षमताओं का विस्तार करे और कौशल विकास पर ध्यान केंद्रित करे।

इस वर्ष सतर्कता जागरूकता सप्ताह के लिए शीर्षक "स्वतंत्र भारत @75; सत्यनिष्ठा से आत्मनिर्भरता" ("Independent India @75: Self Reliance with Integrity) समय की मांग है। जो इंसान जीवन में सत्यनिष्ठा के पथ पर अग्रसर होता है उसे कभी पराजय का सामना नहीं करना पड़ता। सत्यनिष्ठा मानव जीवन को बदलने का सामर्थ्य रखती है। सत्यनिष्ठा के लिए लोगों की भागीदारी ही हमारा संकल्प है।

मैं मॉयल लिमिटेड को "सतर्कता जागरूकता सप्ताह-2021" के अवसर पर "शुचिता" पत्रिका के सफल प्रकाशन की शुभकामनाएं देता हूँ।

(शम चन्द्र प्रसाद सिंह)

फग्गन सिंह कुलस्ते FAGGAN SINGH KULASTE



इस्पात एवं ग्रामीण विकास राज्य मंत्री भारत सरकार उद्योग भवन, नई दिल्ली-110011 MINISTER OF STATE FOR STEEL AND RURAL DEVELOPMENT **GOVERNMENT OF INDIA** UDYOG BHAWAN, NEW DELHI-110011



संदेश

मुझे यह जानकर अत्यंत प्रसन्नता हो रही है कि मॉयल का सतर्कता विभाग "सतर्कता जागरूकता सप्ताह-2021" के अवसर पर अपनी पत्रिका "शचिता" का दसवा अंक प्रकाशित कर रहा है।

सत्यनिष्ठा के साथ किसी भी प्रकार का समझौता नहीं किया जाता और न ही इसका प्रयोग भेदभाव पूर्वक किया जाता है। सत्यनिष्ठा का तात्पर्य यह भी है कि सत्यनिष्ठ व्यक्ति जीत और हार में एक समान रहता है। सत्यनिष्ठ व्यक्ति कभी भी किसी दबाव में कार्य नहीं करता और हमेशा स्वविवेक के आधार पर विचार या निर्णय करता है। कोई भी व्यक्ति यदि किसी दूसरे पर निर्भर है, हर काम या अपनी आवश्यकता के लिए दूसरे की मदद की गुहार लगाता है तो उसके लिए यह बहुत बड़ी कमी है। उसे खुद पर निर्भर होना चाहिए न कि किसी दूसरे पर।

मै "सतर्कता जागरूकता सप्ताह-2021" के अवसर पर मॉयल के सतर्कता विभाग को पत्रिका "शुचिता" के सफल प्रकाशन की शुभकामनाएं देता हूं।



केन्द्रीय सतर्कता आयोग CENTRAL VIGILANCE COMMISSION



सतर्कता भवन, जी.पी.ओ. कॉम्पलैक्स, ब्लॉक-ए, आई.एन.ए., नई दिल्ली-110023 Satarkta Bhawan, G.P.O. Complex, Block A, INA, New Delhi-10023 019/VGL/029

019/VGL/029 ₹i./No......Υ17.10.2021

दिनांक / Dated.....

MESSAGE

Vigilance Awareness Week (26th October to 1st November, 2021)

It is a matter of pleasure that during the current year the Commission has issued the guidelines for observing Vigilance Awareness Week from 26th October, 2021 to 1st November, 2021. The theme for the current year's Vigilance Awareness Week is as under:

"स्वतंत्र भारत @ 75: सत्यिनष्ठा से आत्मिनर्भरता" "Independent India @ 75: Self-Reliance with Integrity"

Self-reliance and integrity are the two ideals which need focus as they are important for achieving all-round progress and development of the country. During the Vigilance Awareness Week there is an opportunity for all to re-affirm ourselves towards our collective duty and responsibility to ensure transparency and integrity in the systems and procedures.

This year a special initiative has been taken to create awareness for the complaint mechanism available under the Public Interest Disclosure and Protection of Informers (PIDPI) resolution. During the current year, all the organizations have also been requested to focus on improvements in internal processes and other house-keeping activities.

The Commission appeals to all the citizens of the country to come forward, during the 75th year of Independence, and support the drive to achieve self-reliance with integrity.

(SURESH N. PATEL) Central Vigilance Commissioner

संदेश

पुनीत कंसल, भा.प्र.सं. संयुक्त सचिव Puneet Kansal, IAS Joint Secretary





भारत सरकार इस्पात मंत्रालय GOVERNMENT OF INDIA MINISTRY OF STEEL



संदेश

मुझे यह जानकर हर्ष हो रहा है कि मॉयल लिमिटेड "सतर्कता जागरूकता सप्ताह—2021" के अवसर पर अपनी आंतरिक पत्रिका **"शुचिता"** का दसवा अंक प्रकाशित कर रहा है।

भ्रष्टाचार मिटाने का सबसे प्रभावी उपाय है कि हर व्यक्ति अपने बारे में तय करे कि वो ईमानदारी से काम कर रहा है या नहीं। भ्रष्टाचार मिटाने के लिये हमें हमारे जिम्मेंदारियों के प्रति निष्ठावान होना होगा तथा कार्यप्रणाली को और अधिक पारदर्शी बनाना होगा। हर व्यक्ति को यह प्रण लेना होगा कि "हम अपने कर्तव्य का पालन पूर्ण निष्ठा तथा ईमानदारी से करेंगे और भय अथवा पक्षपात के बिना कार्य करेंगे"।

मुझे पूर्ण विश्वास है कि यह पत्रिका सतर्कता विषयक विचारों, अनुभवों एवं प्रतिभाओं को साझा करने के लिए उपयुक्त मंच प्रदान करेगी।

मैं मॉयल को सतर्कता जागरूकता पत्रिका 'शुचिता' के सफल प्रकाशन हेतु शूभकामनाएँ देता हूँ ।

> पुनीत कीनल 28 | प्री थ . पुनीत कंसल

पुनीत कंसल संयुक्त सचिव एवं मुख्य सतर्कता अधिकारी

संदेश





मॉयल लिमिटेड

(भारत सरकार का उपक्रम)

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वेबसाईट : www.moil.nic.in CIN : L99999MH1962GOI012398

दिनांक : 18 अक्टूबर, 2021

संदेश

मुझे यह जानकर अत्यंत हर्ष हो रहा है कि मॉयल का सतर्कता विभाग "सतर्कता जागरूकता सप्ताह—2021" के अवसर पर अपनी आंतरिक पत्रिका "शुचिता" का दसवा अंक प्रकाशित कर रहा है।

सार्वजिनक जीवन में भ्रष्टाचार के खतरे का मुकाबला किए बिना किसी समाज की सामाजिक और आर्थिक प्रगित संभव नहीं है। एक पारदर्शी और भ्रष्टाचार मुक्त शासन प्रणाली किसी समाज या देश के आर्थिक विकास और प्रगित के लिए एक आवश्यक उपकरण है।

इस वर्ष सतर्कता जागरूकता सप्ताह के लिए चुना गया शीर्षक है "स्वतंत्र भारत @75; सत्यिनिष्ठा से आत्मिनर्भरता" (Independent India @ 75 : self reliance with integrity) जो उपयुक्त है। सत्यिनिष्ठा यह सामाजिक तथा राष्ट्रीय आवश्यकता है। सत्यिनिष्ठा व्यक्ति के व्यक्तित्व में बहुत गहरा प्रभाव डालती है।

मुझे यकीन है कि मॉयल सतर्कता विभाग द्वारा हर साल जागरूकता सप्ताह के दौरान चलाया गया जन जागरूकता अभियान भ्रष्टाचार के दुष्प्रभावों के बारे में कर्मचारीयों को जागरूक करता है और उन्हें जीवन के सभी क्षेत्रों में न्याय और समानता के सिध्दांतों पर आधारित एक निष्पक्ष प्रणाली अपनाने के लिए प्रोत्साहित करता है।

भ्रष्टाचार की रोकथाम में मॉयल के सतर्कता विभाग का हमेशा महत्वपूर्ण योगदान रहा है। मैं मॉयल के सतर्कता विभाग के सतर्कता पर किये जा रहे प्रयासों की सराहना के साथ "शुचिता" पत्रिका के दसवे अंक के प्रकाशन हेतु शुभकामनाएँ देता हूँ।

> मुकुंद पी. चौधरी अध्यक्ष—सह—प्रबंध निदेशक





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संदेश

मुझे यह जानकर अत्यंत प्रसन्नता हो रही है कि मॉयल का सतर्कता विभाग "सतर्कता जागरूकता सप्ताह-2021" के अवसर पर अपनी आंतरिक पत्रिका **"श्विता"** का दसवा अंक प्रकाशित कर रहा है।

भ्रष्टाचार राष्ट्रीय विकास और प्रगति में सबसे बडी बाधा है। हमें सत्यनिष्ठा को बढ़ावा देने और जीवन के सभी क्षेत्रों में भ्रष्टाचार का मुकाबला करने का प्रयास करना चाहिए। एक सतर्क नागरिक बनना और हमारे आसपास की दुनिया में किसी भी रूप से भ्रष्टाचार को रोकना हमारा कर्तव्य है।

एक प्रभावी और सिक्रय सतर्कता तंत्र शासन की गुणवत्ता में सुधार लाने में योगदान दे सकता है। हमें इस अवसर का उपयोग सार्वजनिक जीवन में सत्यनिष्ठा, पारदर्शिता और जवाबदेही को बढावा देने के लिए करना चाहिए जिससे एक बेहतर भविष्य का निर्माण हो।

मै मॉयल के सतर्कता विभाग को सतर्कता जागरूता सप्ताह-2021 तथा पत्रिका "श्चिता" के प्रकाशन के सफलता की श्भकामनाएँ देता हूँ।

> राकेश तुमाने निदेशक(वित्त)

संदेश



उषा सिंह

Usha Singh

निदेशक (मानव संसाधन)

Director (Human Resource)



मॉयल लिमिटेड / MOIL LIMITED (A Government of India Enterprise) (भारत का एक सरकारी उपक्रम)

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संदेश

मुझे यह जानकर अत्यंत खुशी हो रही है कि मॉयल का सतर्कता विभाग "सतर्कता जागरूकता सप्ताह—2021" के अवसर पर अपनी आंतरिक पत्रिका **'शुचिता**" का दसवा अंक प्रकाशित कर रहा है।

भ्रष्टाचार देश की उन्नित के लिए सबसे बड़ी बाधा है। भ्रष्टाचार आर्थिक विकास की दर को बाधित करता है, प्रतिस्पर्धा को विकृत करता है, निवेश की दर पर प्रतिकृल प्रभाव डालता है और समाज के नैतिक ताने—बाने को कमजोंर करता है। भ्रष्टाचार के उन्मूलन हेतु सभी हितधारकों को एक साथ काम करने और प्रभावी भ्रष्टाचार विरोधी तंत्र को लागू करने की आवश्यकता है। भ्रष्टाचार के खिलाफ लड़ाई में ईमानदारी और अखंडता के सिध्दांतो का पालन करने का संकल्प करने वाले व्यक्तियों और नागरिक समाज के सदस्यों की सिक्य भागीदारी अत्यंत महत्वपूर्ण है।

मैं सतर्कता विभाग को "सतर्कता जागरूकता सप्ताह—2021" के अवसर पर पत्रिका "शुचिता" के सफल प्रकाशन की मंगल कामना करती हूँ।

उषा सिंह) (उषा सिंह) निदेशक (मानव संसाधन)

संदेश





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संदेश

मुझे यह जानकर अत्यंत हर्ष हो रहा है कि "सतर्कता जागरूकता सप्ताह—2021" के अवसर पर सतर्कता विभाग अपनी आंतरिक पत्रिका "शुचिता" का दसवा अंक प्रकाशित कर रहा है।

निसंदेह भ्रष्टाचार राष्ट्र के विकास को प्रभावित करता है, सरकार की आय को कम करता है और विकास में बाधा डालने वाला एक प्रमुख कारक है। भ्रष्टाचार एक गंभीर और जटिल बिमारी है जिसका मुकाबला बहुआयामी रणनीतियों से किया जाना चाहिये।

हमें भ्रष्टाचार से लड़ने के लिए सामूहिक रूप से काम करने की आवश्यकता है। भ्रष्टाचार उन्मुलन का लक्ष संस्था के किसी एक व्यक्ती या किसी एक विभाग के प्रयासों से प्राप्त नहीं हो सकता। संस्था के हर एक कर्मचारी का दायित्व है कि वह इस लक्ष्य प्राप्ति में हिस्सेदार बनें।

सतर्कता विभाग की आंतरिक पत्रिका "शुचिता" सतर्कता जागरूकता लाने एवं वैचारिक आदान—प्रदान हेतु प्रबल माध्यम साबित होगा । मै मॉयल के सतर्कता विभाग को पत्रिका "शुचिता" के सफल प्रकाशन हेतु शुभकामनाएँ देता हूँ।

पी.व्ही.व्ही. पटनायक निदेशक (वाणिज्य)





प्रदीप कामले, आई.आर.एस.एम.ई. मुख्य संतर्कता अधिकारी

Pradeep Kamle,IRSME Chief Vigilance Officer





Message

Dear Reader.

It gives me immense pleasure to present before you the 10th edition of "Suchita" Inhouse Vigilance magazine of MOIL. Vigilance Awareness Week is being observed in MOIL Ltd from 26th Oct. to 1st Nov. on the theme of "Independent India@ 75: Self-reliance through integrity" which is an apt and relevant topic on the occasion of 75 years of India's Independence. Many outreach activities advised by CVC like Vigilance Awareness Walkathon, Seminar, Gram Sabha, Vendor Meet, Essay/Poem/Slogan/Drawing competitions etc. are being organized at Mines and HO

Focus areas during VAW will be to bring greater awareness on complaints under Public Interest Disclosure and Protection of informers, special clearance campaign of all outstanding vigilance matters and housekeeping activities.

Vigilance is an integral function of MOIL Management, striving to achieve organisational goal through its efforts in bringing probity and integrity in the management. It is possible by active involvement of vigilance officials in bringing transparency, ensuring accountability, leveraging technology to reduce human interface, inspections and systemic improvements.

An attempt has also been made to make its role visible in this direction by making a short video on the theme of VAW 2021.

The purpose of the magazine is to provide a platform to MOIL employees for creative and intellectual expression. Comments and suggestions are welcome from readers to bring improvements in subsequent issues. I hope readers shall find material in this issue interesting and useful.

Pradeep Kamle

emile





संतुलन

राकेश तुमाने निदेशक (वित्त)

आज खबर पढ़ी की भौतिकी में नोबेल पुरस्कार तीन वैज्ञानिकों को दिया गया है उनके शोध पर कि किस तरह मानवता ने जलवाय को प्रभावित किया है। ये तीन वैज्ञानिक है स्युक्रो मनाबे, क्लॉस हैसलमैन और जियोर्जियो पेरिसिक। इसके पहले यह सर्वविदित था कि कार्बन डाइऑक्साइड (CO2) ऊर्जा (गर्मी) को सोखता है जलवायु को गरम करता है। लेकिन ये नहीं मालूम था कि कितना और किन किन मात्राओं में। स्युक्रो मनाबे ने 1960 में एक मॉडल विकसित किया जिससे CO2 के प्रदूषण के आधार पे यह बताना आसान हो गया कि क्लाइमट कैसे प्रदूषित होगा और कितनी जल्दी। दस साल बाद क्लॉस हैसलमैन ने ये सिद्ध किया कि जलवाय के बहत अस्त व्यस्त होने के बावजूद जलवाय मॉडल सटीक और विश्वसनीय हो सकता है। उन्होंने ऐसी प्रणाली भी विकसित की जिससे यह बताया जा सके की हमें कौनसे चिन्हों को देखना है जिनसे यह पता चल सके की मानवता किस तरह से जलवायु को प्रभावित कर रही है। जियोर्जियो पेरिसिक ने एक भौतिक और गणितीय मॉडल विकसित किया जिससे जीव विज्ञान, तंत्रिका विज्ञान, मशीन लर्निंग, जलवायु मॉडल जैसे कॉम्प्लेक्स सिस्टम्स को समझने में मदद मिली। इस वर्ष के भौतिकी नोबेल पुरस्कार ने जलवायु परिवर्तन के मुद्दे को केंद्र स्तर पर खड़ा कर दिया है।

हम सब जानते है कि CO2 और दूसरी ग्रीन हाउस गैसेस की वजह से पृथ्वी गर्म हो रही है और यदि इन गैसों का उत्सर्जन कम नहीं किया गया तो जलवायु परिवर्तन विकराल रूप धारण कर सकता है। लेकिन क्या आपने कभी ये कल्पना क़ी है कि अगर CO2 और दूसरी ग्रीन हाउस गैसेस खत्म हो जाए या बहुत कम हो जाए तो क्या होगा? इसका उत्तर भी यही है कि यदि ऐसा हुआ तो पृथ्वी की जलवायु पूरी तरह से शप्त विशप्त हो जाएगी। CO2 और दूसरी ग्रीन हाउस गैसेस का अत्यधिक कम होना उतना ही घातक है जितना बहुत ज्यादा होना। पुरानी कहावत है कि अधिक मात्रा में अमृत भी विष बन जाता है। यह कहावत जलवायु के मामले में भी सही साबित होती है।

अनुमान है कि पृथ्वी की आयु लगभग 4.5 अरब वर्ष है। नवनिर्मित पृथ्वी के मध्य में प्रायतह लोहा और निकल था जो बहुत गरम गाढ़े द्रव्य के रूप में था। पृथ्वी के इस कोर के ऊपर तीन हज़ार किलोमीटर मेंटल की सतह थी जो बनी थी गैसेस, पानी और सेमी मोल्टेन चट्टानों से। हल्की चट्टानें ऊपर तैरने लगी और उस से पृथ्वी का क्रस्ट बन गया। पानी और गैसेस ज्वालामुखी के विस्फोटों के कारण पृथ्वी के गर्भ से बाहर आने लगे और इस तरह पृथ्वी का वातावरण और सागर स्रजीत हुए। पृथ्वी का वातावरण पहले CO2 और दूसरी ग्रीन हाउस गैसेस से प्रचुर था। इस वातावरण में ना कोई जीवित प्राणी था ना कोई ऑक्सीजन। वैज्ञानिकों का कहना है कि जैवीय प्राणी, टेक्टॉनिक्स प्लेट तथा इरोज़न जैसे भृवैज्ञानिक प्रक्रियाएं पृथ्वी पर एक होमियोस्टेसिस थर्मोस्टेट बनाए रखते हैं। इस होमियोस्टेसिस की वजह से CO2 और दुसरी ग्रीन हाउस गसेस तथा ऑक्सीजन निर्धारित अनुपात में रहती है जिससे पृथ्वी का तापमान 0 से 100 डिग्री सेंटीग्रेड के अंदर रहता है। 0 से 100 डिग्री सेंटीग्रेड का तापमान जीवन के पनपने के लिए एक आवश्यक शर्त है जिसे वैज्ञानिक 'गोल्डिलॉक कंडीशन' भी कहते है। शुक्र ग्रह पे अत्यधिक मात्रा में CO2 है और वहाँ ग्रीन हाउस इफ़ेक्ट की वजह से तापमान बहुत ज्यादा है। इस कारण वहाँ जीव नहीं है। मंगल ग्रह बहुत छोटा होने कि वजह से उसकी गुरुत्वाकर्षण शक्ति गैसेस को बांध नहीं पाई जिसके चलते मंगल ग्रह से सभी गैसेस खत्म हो गयी और वह ठंडा हो गया। वहाँ बचा पानी बर्फ़ के स्वरूप में उपलब्ध है।

प्रोकैरियोट्स पृथ्वी पर उत्पन्न होने वाले सबसे पहले जीव थे। ये सिंगल सेल्ड जीव थे जो क़रीब 4 अरब वर्ष पहले अवतरित हुए। ये जीव केमोत्रोफ थे यानी उनका आहार आसपास के रसायन थे। पर जल्दी ही वो दूसरे प्रोकैरियोट् खाने लगे और हमारे जैसे परभक्षी बन गए। करीब 3.5 अरब वर्ष पहले फोटोसिंथेसिस का पृथ्वी पर अविष्कार हुआ। जैसा कि हम जानते है फोटोसिंथेसिस सूर्य किरणो की ऊर्जा से कार्बोहाइड्रेटस और ऑक्सीजन का निर्माण करता है। लेकिन शुरू में फोटोसिंथेसिस से ऑक्सीजन नहीं बनती थी। लेकिन 3 अरब वर्ष पहले साइयनोबैक्टीरीया का उदय हुआ जो फोटोसिंथेसिस में पानी और CO2 का इस्तेमाल कर कार्बोहाइड्रेटस और ऑक्सीजन बनाने वाले विशेष प्रोकैरियोट्स थे। इसके बाद में वातावरण में तेज़ी से

ऑक्सीजन की बढ़ोतरी हुई। 2.5 अरब वर्ष पहले ऑक्सीजन प्रचुर वातावरण के अभ्युदय को 'ग्रेट ऑक्सीजनेशन इवेंट' कहते है। ऑक्सीजन एक बहुत ही रीऐक्टिव रासायनिक तत्व है इसलिए ऑक्सीजन के बढ़ते स्तर ने पृथ्वी की रासायनिक संरचना को पूरी ही तरह से बदल दिया। अनेक मिनरल्स जैसे मैंगनीज़, लोहा, एल्युमीनियम इत्यादि ऑक्सीजन के यौगिक के रूप में ही पाए जाते। लेकिन ऑक्सीजन का बढ़ना उस काल के जीवों के लिए एक श्राप था क्योंकि ऑक्सीजन उनके लिए ज़हर समान था। उस काल के बहुत सारे प्रोकैरियोट् या तो ऑक्सीजन शॉक से मर गए या पुनः समुद्र की गहराइयों में चले गए जहां उनकी उत्पत्ति हुई थी।

ऑक्सीजन के बढ़ते स्तर ने पृथ्वी के होमियोस्टेसिस थर्मोस्टेट को तहस नहस कर दिया क्योंकि तब तक अतिरिक्त ऑक्सीजन सोखने की कोई प्रणाली बनी नहीं थी। आज के काल में अतिरिक्त ऑक्सीजन, जीव श्वसन क्रिया द्वारा सोख लेते है और CO2 का निर्माण करते है। इस कारण आज के युग में होमियोस्टेसिस थर्मोस्टेट काम कर रहा है। लेकिन 2.35 से 2.22 अरब वर्ष पहले बढ़ते ऑक्सीजन की वजह से पृथ्वी फ्रोज़न हो गयी। पृथ्वी के ध्रुवों से भूमध्य रेखा तक ग्लेशियर फैल गये और पृथ्वी की सतह सफ़ेद चादर से ढक गयी। सफ़ेद धरती ज्यादा सूर्य प्रकाश रिफ्लेक्ट करने लगी जिसके ठंडी और बढने लगी। अंततह सभी

महाद्वीप और समुद्र बर्फ से ढक गए। जीवन खत्म होने के कगार पर था। लेकिन तभी नए जीवों का उद्भव हुआ जो ऑक्सीजन सोखने की क्षमता रखते थे। ये जीव थे यूकेरियोट्स जो श्वसन क्रिया द्वारा ऑक्सीजन सोख लेते है और CO2 का निर्माण करते है।

पृथ्वी के बर्फीले होने से गरम होने की कहानी एक बहुत बड़ी सीख दे जाती है जो हमारे दैनिक जीवन में बहुत उपयोगी है। वह सीख है – संतुलन। जब संतुलन बिगड़ता है तो विकराल परिस्थितियाँ उत्पन्न होती हैं। हम सभी ने अनुभव किया है की जब हम हमारे परिवार में, ऑफ़िस में, खाने में, बोलने में या किसी भी व्यवहार में संतुलन खोते है तो परिस्थितियाँ और ज्यादा विषम हो जाती है। इसलिए ये आवश्यक है की हम संयम और संतुलन से काम ले और एक खुशहाली से भरी अच्छी ज़िंदगी जियें।



स्लोगन

भ्रष्टाचार पर अंकुश लगाना है, भारत को विकसित राष्ट्र बनाना है।

तिरंगा शान से लहरायेंगे, भारत को भ्रष्टाचार से मुक्त बनायेंगे।।

अबकी बार हमने ठाना है, भ्रष्टाचार रूपी इस रावण को मिटाना है।।

समाज में असंतोष की वजह है, भ्रष्टाचार फैला हर जगह है।। आज हमें एक प्रण लेना होगा, भ्रष्टाचार में आखिरी दम तक लड़ना होगा।।

अगर भ्रष्टाचार के सामने हर कोई मौन रहेगा, तो इसके खिलाफ अभियान में कौन रहेगा।।

रूमाकांत गायकवाड

सहा-सह-टंकक-।।। (पीएंडए) गुमगांव खान





ETHICS: What is right to do

Manoj TewariDy. Chief Vigilance Officer

"In just about every area of society, there's nothing more important than ethics".

-Henry Paulson

Ethics, like other branches of philosophy, originates from apparently simple questions. What makes honest actions right and dishonest ones' wrong? Whether I keep a purse found in bus with me or return it back to its owner? Is it right to cut a tree near my home to make space for car parking? Should my nation accept refugees of other nations? These are questions that naturally occur in the course of our lives, just as they naturally occurred in the lives of people who lived before us and in societies with different cultures and technologies from ours. They are seemingly simple but ultimately perplexing. Ethics is basically reflective study of such questions and finding out what actions are good or bad.

Etymologically the term "ethics" corresponds to the Greek word "ethos" which means character, habit, customs, ways of behaviour etc. Ethics is also called "moral philosophy". The word "moral" comes from Latin word "mores" which signifies customs, characters, behaviour etc. In simple words, ethics refers to what is good and the way to get it, and what is bad and how to avoid it. It refers to what ought to be done to achieve what is good and what shall not to be done to avoid what is evil.

As a philosophical discipline, ethics is the study of the values and guidelines by which we live. It also involves the justification of these values and guidelines. It is not merely following a tradition or custom. Instead, it requires an analysis and evaluation of these guidelines in light of universal principles. As moral philosophy, ethics is the philosophical thinking about morality, moral problems, and moral judgments.

Ethics is also a science as its principles are deduced from human reasons. Ethics is also theoretical and practical. It is theoretical in as much as it provides the fundamental principles on the basis of which moral judgements are arrived at. It is practical in as much as it is concerned about an end to be gained, and the means of attaining it.

Thus, ethics may be defined as:

The systemic study of human actions from the point of view of their rightfulness or wrongfulness, as means for the attainment of the ultimate happiness.

Ethics is a set of standards that society places on itself and which helps guide behaviour, choices and actions It is reflective study of what is good or bad in that part of human conduct for which human has some personal responsibility.

A system of accepted beliefs that control behaviour, especially such a system based on morals.

Ethics and Religion:

Ethics has no necessary connection with any particular religion. A religion is an organized collection of beliefs, cultural systems, and world views that relate humanity to an order of existence. Often, religion and ethics are treated as the same thing, with various religions making claims about their belief systems being the best way for people to live. In general, all religious traditions believe that their faith represents a path to enlightenment and salvation. On the other hand, ethics are universal decision-making tools that may be used by a person of any religious persuasion, including atheists.

For Example:

Norms of good behaviour mandated by a particular religion may not be applicable to an atheist but still his behaviour is expected to follow certain ethics.

While religion makes claims about cosmology, tradition and beliefs, ethics are based on logic and reason rather than tradition or injunction.



Many of the practices of religion are ethical but some religious practices may not be considered as ethical. Ethics can question even religious practices.

For Example:

- Custom of Sati was religious but considered as unethical.
- 2. Women are not allowed to enter in sanctum sanctorum of some temples as a religious practice but it may be considered as unethical.

The core of every religion in fact focuses on certain universal morals (e.g. love, compassion, truth). But the periphery which includes certain rituals, customs, and traditions may be unethical.

Ethics and Law:

The Law is systematic set of universally accepted rules and regulation created by an appropriate authority such as government, which may be regional, national, international, etc. It is used to govern the action and behaviour of the members and can be enforced, by imposing penalties.

Ethics are the principles that guide a person or society, created to decide what is good or bad, right or wrong, in a given situation. It regulates a person's behaviour or conduct and helps an individual in living a good life, by applying the moral rules and guidelines. Many laws are ethical but one must note that some laws may not be considered as ethical i.e. what's legal isn't always ethical. It is said that the law sets minimum standards of behaviour while ethics sets maximum standards

For Example:

- 1. Clinical trials are legal in many countries but they may not be considered as ethical.
- 2. During British period, suppressing freedom of expression through Vernacular Press Act, Sedition Act was legal but not ethical
- 3. Apartheid was legal but was unethical.
- 4. Racially segregated seating on buses was legal in Montgomery, Alabama but is not ethical.

Therefore, Ethics is knowing the difference between what you have a right to do and what is right to do.



स्लोगन

जब हर नागरिक जागेगा, तभी भ्रष्टाचार रूपी यह दानव देश से भागेगा।

देश की आम जनता रही पुकार, बंद करो ये भ्रष्टाचार ।।

बहुत हुआ देश में हाहाकार, अबकी बार भ्रष्टाचार पर वार।

रिश्वत ले-देकर तुम नादान ना बनो, भ्रष्टाचार को बढाकर शहीदों का अपमान ना करों। आओ मिलकर ले यह संकल्प, ईमानदारी का नहीं है दूसरा कोई विकल्प।।

सच्चाई के राह में तुम आगे बढ़ो, देशहित के लिए इस भ्रष्टाचार रूपी इस दानव से लड़ो।

देवानंद अहंगारे

सहा-सह-टंकक-।। (पीएंडए) गुमगांव खान





Life during and after Pandemic

S. C. Rai G.M. (Technical)

India has also witnessed the horrors of the coronavirus pandemic. It has created an enormous strain on our health system infrastructure.

A recent study and meta-analysis of the prevalence of psychological co-morbidities among COVID 19 patients, health care professionals, and the general public showed that 40% of individuals had poor sleep quality, 34% have stress, and 34% have psychological distress. Another online poll discovered that 40.5% of respondents said they were experiencing depressed or anxious symptoms. Another three-quarter of participants reported having a moderate degree of stress and a negative sense of well-being.

Certain societal groups, such as the elderly and disabled, pregnant women, economically weak and children, are more prone to suffer from the coronavirus pandemic's severe consequences. Lockdown and epidemic are likely to have the most significant effect on individuals who are alone, underprivileged, deprived, mentally burdened, or otherwise outside the mainstream.

Frontline workers and health care workers also have a greater chance of acquiring depression and other mental health problems than other social groups due to their increased exposure to the virus. Research showed a very particular fact, those close to their family who had a close connection and vulnerabilities were more likely to exhibit social empathy and have more positive social interactions. However, the psychological portion of the research showed that a solid and strong attitude, good coping techniques, and other methods enabled even high-risk people to maintain a positive attitude during the coronavirus pandemic.

Considering advances in medicine and technology, the coronavirus pandemic has claimed over 4.69 million lives worldwide. Apart from the mortality toll, this pandemic has exposed individuals to various physical,

mental, social, and emotional difficulties. Covid-19 has previously been linked to a varied and broad range of mental health problems, including depression, anxiety, stress disorder, trauma, and other stress-related diseases.

Individuals at high risk, such as frontline and health care professionals and the poor are more likely to be impacted than those at the bottom of the social structure hierarchy. Each individual has a unique tale to tell. Nobody is immune to it. According to the centre for Disease Control and Prevention in the United States of America, 40.9 % of respondents reported experiencing negative mental health symptoms, anxiety, sadness, and suicidal thoughts. According to analysts, this has risen by many orders of magnitude in comparison to 2019.

This rapid increase in and expectation of a large number of mental health problems is due to various factors, including helplessness, death of loved ones, fear of contracting illnesses, worries about the future, job loss due to recession, social isolation, and adaptability to new developments and restrictions. The coronavirus pandemic has evolved into a persistent trigger for seeding mental health problems across all socioeconomic levels.

While modern methods and the development of vaccinations have helped resolve the present COVID issue and contain the problem to a degree, the virus has resulted in a warped social fabric and a lack of emotional and social support. At the beginning of the epidemic, there was a glimmer of optimism among the masses, but people become sad and hopeless as time passes. Nobody is aware of the distant and unlikely consequences of the coronavirus epidemic. Experts have advised people to prepare themselves for the pandemic's long-term mental consequences and psychological repercussions.

Life will not be the same again after the Covid-19 pandemic. We are all anticipating a fresh beginning. The start of a post-COVID future in which everything will



change, and we will need to adjust our behaviour accordingly. Everything will change our values, our lives, our houses, our etiquette and manner of social contact, our viewpoint, and societal outlook. We are inclined to take a chance and are curious about what the future holds for us, but we can never be sure since the future is unpredictable. Long-term coronavirus effects typically include an increase in economic inequality, more cars and fewer people on the road (which means people will develop a habit of staying inside their homes and we will

see far fewer people outside than we did previously), changes in physical and mental health, changes in lifestyle, and possibly a dramatic increase in social leisure activities and social ability to interact.

Finally, stating that there is always a light at the end of the tunnel and that "this too will pass." Avoid being too hard on yourself, and I think that regardless of how difficult it seems right now, we will make it through together.



Team Work

This is story about four people named Everybody, Somebody, Anybody and Nobody. There was an important job to be done and Everybody was sure that Somebody would do it, Anybody could have done it, but Nobody did it. Somebody got angry about that, because it was Everybody's job.

Working together in any concern for its growth, its everyone's responsibility to work in team,
Here are some of tips for effective teamwork;

- Make teamwork a priority and reward teamwork.
- Clarify roles, responsibilities and accountabilities.
- Set clear goals.
- Communicate with each other.
- Make decisions together.
- Build trust and get to know each other better.
- Celebrate difference/diversity.

Let's work together to get great results.

Mrs. Pragya Dubey Sl. Gr. Nurse Dongri Buzurg Mine.



PIDPI Complaints

What are PIDPI Complaints:

Department of Personnel and Training's Resolution No. 89 dated 21st April, 2004, commonly known as Public Interest Disclosure and Protection of Informers Resolution, 2004, envisages a mechanism by which a complainant can blow a whistle by lodging a complaint and also seek protection against his victimization for doing so. Such complaints made under Public Interest Disclosure and Protection of Informers Resolution are termed as PIDPI complaints. If any complaint is made under PIDPI, the identity of the complainant is kept confidential.

The Central Vigilance Commission is the designated agency to receive complaints from whistle blowers under the PIDPI Resolution.

GUIDELINES FOR LODGING PIDPI COMPLAINT

- The complaint should be in a closed/ secured envelope and should be addressed to Secretary, Central Vigilance Commission. The envelope should clearly be inscribed with "Complaint under the Public Interest Disclosure" or "PIDPI"
- The complainant should give his/her name and address in the beginning or end of complaint or in an attached letter. The name and address should NOT be mentioned on the envelope.
- 3. Only complaints pertaining to employees of the Central Government or of any corporation

established by or under any Central Act, Government companies, societies or local authorities owned or controlled by the Central Government fall under the jurisdiction of the Commission. Personnel employed by the State Governments and activities of the Stage Governments or its Corporations etc. will not come under the purview of the Commission.

- Complaints should be sent via post only. Complaints received through emails, Complaint Management Portal or any other electronic medium will not be entertained.
- 5. In order to protect identity of the person, the Commission will not issue any acknowledgement and the whistle-blowers are advised not to enter into any further correspondence with the Commission in their own interest. The Commission assures that, subject to the facts of the case being verifiable, it will take the necessary action, as provided under the Government of India Resolution mentioned above
- 6. The complaints should have vigilance angle and should not be for grievance redressal.
- 7. PIDPI complaints should not include details that identify the complainant. If the inclusion of such details is unavoidable then a normal complaint may be lodged in the CVC portal.



"Cultivation of mind should be the ultimate aim of human existence"

- Dr. B. R. Ambedkar



Rooftop Solar Power System

Akhilesh Rai G.M. (Electrical)

A rooftop photovoltaic power station, or rooftop PV system, is a photovoltaic (PV) system that has its electricity-generating solar panels mounted on the rooftop of a residential or commercial building or structure. The various components of such a system include photovoltaic modules, mounting systems, cables, solar inverters and other electrical accessories. Most rooftop PV stations in developed countries are Gridconnected photovoltaic power systems. Rooftop PV systems on residential buildings typically feature a capacity of about 5 to 20 kilowatts (kW), while those mounted on commercial buildings often reach 100 kilowatts to 1 Megawatt (MW). Capacity of Rooftop for residential purpose shall be selected as per monthly electricity consumption trend. The average generation of about 4 KWh/KWp/day may be considered as a reference for determination of capacity of Rooftop system.

The urban environment provides a large amount of empty rooftop spaces and can inherently avoid the potential land use and environmental concerns. Estimating rooftop solar insolation is a multi-faceted process, as insolation values in rooftops are impacted by the following:

- Time of the year
- Latitude



- Weather conditions
- Roof slope
- Roof aspect
- Shading from adjacent buildings and vegetation

Components of a rooftop solar array:

The following section contains the most commonly utilized components of a rooftop solar array. Though designs may vary with roof type, roof angle, and shading concerns, most arrays consist of some variation of the following components

- 1. Solar Panels produce carbon free electricity when irradiated with sunlight. Often made of Silicon, solar panels are made of smaller solar cells which typically number 6 cells per panel. Multiple solar panels strung together make up a solar array. Solar panels are generally protected by tempered glass and secured with an aluminum frame. The front of a solar panel is very durable whereas the back of a panel is generally more vulnerable.
- 2. Mounting clamps generally consist of aluminum brackets and stainless steel bolts that secure solar panels to one another on the roof and onto the rails. Clamps often vary in design in order to account for various roof and rail configurations. [8]





- 3. Racking or rails are made of metal and often lie in a parallel configuration on the roof for the panels to lie on. It is important that the rails are level enough for the panels to be evenly mounted.
- 4. Flashings are a durable metal plate that provides a water resistant seal between the mounts and roof surface. Oftentimes, caulk is used to seal the flashing to the roof and it resembles a metal roof shingle.
- DC/AC wiring for inverters connect wires between panels and into a micro inverter or string inverter.
 No cables should touch the roof surface or hang from the array to avoid weathering and the deterioration of cables.
- 6. Micro inverters are mounted to the bottom of the panel and convert DC power from the panels into AC power that can be sent into the grid. Micro inverters allow for the optimization of each panel when shading occurs and can provide specific data from individual panels.

Net-metering mechanism:

This is an arrangement for grid connected solar power systems. In this mechanism, the excess solar power generated is exported to the electricity grid. The consumer gets credit for the amount of power exported. At the end of the billing cycle, the consumer is charged for the net or difference of power imported and power exported to the electricity grid. hence the name, net-metering. The exported kWh are only used to adjust the imported kWh prior to the bill calculation.

The biggest advantage of installing rooftop solar panels is that they offer cost savings. For building owners, rooftop solar installations can help in cutting down electricity bills. Rooftop panels supply electricity to buildings, so they need to buy less electricity. Approximate payback period for Roof Top solar system for residential purpose is 5-8 years. It depends on capacity of Rooftop system and tariff rates of DISCOM.



The real test is not whether you avoid this failure, because you won't.

It's whether you let it harden or shame you into inaction,
or whether you learn from it; whether you choose to persevere.

- Barack Obama



"Character is like a tree and reputation like a shadow.

The shadow is what we think of it and the tree is the real thing.

- Abraham Lincoln





Self Reliance and Integrity - Needful for the Nation

Anil Gaikwad Vigilance Officer Balaghat Mine

The Chief Vigilance Commission is going on observes the Vigilance Awareness Week from 26th October to 1st November 2021 with the theme "Independent India @ 75: Self Reliance with Integrity".

• Self Reliance means independence. It is the foundation for independence. At first glance, independence may seem at odds with attachment and seems more self-oriented than other-oriented. Self-reliance does not mean that you dismiss everyone else and only listen to yourself. It is the confidence on someone's own struggle, help, support and potential implications for self-worth, self-expression, self-knowledge, resilience, and for self-acceptance. Trust on ourselves and be self-dependence and self-support. It tells him that he is not to lean on any prop or support, but to go on in life, lord of himself, dependent on none. Self-help should be the guiding principle of his life. This is his ideal, his aspiration.

Self-reliance creates the capacity to lead others. Leaders are alone at the top. They must be comfortable with that position and not feel lonely because they are left alone. They must have a clear vision for what they want to do and convince others to adopt their view of the problem. They must have expertise in addressing the resistance of others to their ideas without alienating the dissenters.

- Benefits of Self-Reliance:
 - It brings about self-esteem, self-respect and happiness.
 - ♦ It makes one to be independent and selfindependent of others.
 - It enables one to progress and develop in life.
 - Depending on others for help means there will be times when it's not available.
 - You can solve problems and make decisions for yourself.
 - ◆ You feel happy by yourself, in yourself, and about yourself-without needing to rely on others.

- It encourages you to practice self-compassion and self-knowledge.
- ♦ It gives you perspective and direction.
- Creating self employment.
- Acquire new skills and learn on the job without reliance on others.
- How to Develop Self-Reliance
 - ♦ Don't rely on 'things' to feel happy.
 - Accepting yourself, and being your own best friend....
 - Inner confidence and making our own decisions. ...
 - Recognize and manage dependence and accept yourself for who you are.
 - Develop the ability to feel confident in yourself.
 - Decide who you want to be, and how you want to get there.

When you become self reliant, you take the control of life in your hand.

- Integrity means being honest and having strong moral and ethical principles. Integrity is the foundation of character. A person who has integrity also has an unblemished character in every area of his or her life.. Integrity is a value, like persistence, courage, and ntelligence. It is your choice of values and resolution to live by those values that form your character and personality. And it is integrity that enhances all your other values. The quality of person you are is determined by how well you live up to the values that are most important to you.
- Integrity in the Workplace is the same as it is outside of work. The only difference is that integrity at work supports a company's set of moral standards. Workplace integrity is vital to decision-making, serving customers, and managing employees. It's also crucial to reducing costly errors, avoiding illegal activity, and



keeping the organization's core values top of mind. They will be reliable in the workplace and you can count on them to do the right thing in the right situation, whether they have to make an important work decision, collaborate with their colleagues or attend to the requirements of their clients and customers.

At of the end, accepting of self reliance and integrity should be a duty of every people. It is allows you to build a better become human, nation and world as you never expect someone to work on your behalf, or never use the ability of one to make your life better. It is provide

abilities for getting many opportunities to expand your horizons, develop yourself and taking decisions on your own life and workplace. Also, integrity is a vital part of all our lives. Without a basic human integrity, we are animals. People which have good morals, character and integrity, they make right decisions.

Self-reliance and Integrity, both are needful for making a strong and developed nation to the India.

Quotes: "The Honorable Prime Minister of India Shri Narendra Modi outlined the five pillars of the 'Atmanirbhar Bharat Mission'- Economy, Infrastructure, System, Demography & Demand."



स्लोगन

अपने आचार में सुधार करो। भ्रष्टाचार का सब मिलकर विरोध करो।।

अपने देश को महान बनाओ। इसको भ्रष्टाचार से बचाओ।।

भारत को विश्व गुरू बनाना है। भ्रष्टाचार को खुद से दूर भगाना है।।

रिश्वत लेकर देश के सम्मान को ठेस ना पहुंचाओ। भ्रष्टाचार मिटाकर भारत को विकसित बनाओं।।

श्रीमती सोनिया राजेश मंडाले

भुपृष्ठ पी. आर. कामगार गुमगांव खान





Selection and use of Fly Ash as Stowing Material in Underground Metal Mines

Umeshwar Charpe
Vigilance Officer
Head Office

Abstract:

India is facing shortage of river sand due to its demand in infrastructure sector development, and also ban on use of sand due to several regulations. That lead the mine management to think about an alternate stowing material easily available in the nearby of mine with minimum cost. Fly ash, the waste from thermal power plants is available in plenty. It also needs large land area for its disposal, and also a possible source of pollution of air, water and land. In order to use fly ash, government of India had launched several steps including Fly Ash Mission. In the mining sector attempts have been made to use fly ash in back filling of voids created by underground and opencast mines. In underground metal mines, fly ash is also considered as an alternate river sand as a stowing material. An attempt has been made to study various aspects of stowing vis-à-vis fly ash in underground metal mines.

Introduction

The prime function of fill materials in mine is to assist in managing the stability of mining voids. There are many ways of managing mine voids. Fill is used to increase the flexibility of ore extraction strategies and often allows for an improved recovery of ore bodies. The use of different types of fill, their specific functions and engineering requirement are related to mining methods, mining strategies and mining sequences of operations. The mine fill may be divided into three types: Hydraulic Fill, Paste fill, and Rock fill.

Factors to be considered for selection of an appropriate fill system

Availability of fill material is one of the essential features of any selection method. Any underground metal mine, which operates on the basis of an approved Mining Plan, duly approved by Indian Bureau of Mines. The

approval also indicates the voids to be created and the fill material to be used based on the initial documentation of the mine. Besides, the Fill properties and production rates required to achieve the target in accordance to the mining plan. Capital and operating cost of procurement to site, storage, handling and transport to UG levels are equally important. Rate of filling and fill mass properties are also some of the factors influences in selecting a fill material.

Stowing parameters

Apart from studying the geo-technical and geo-mining conditions in the field, physical properties such as specific gravity, bulk density, grain size distribution and porosity, Water percolation characteristic, Settlement characteristic and Compressibility characteristic are essential components of any study and model.

Backfill of the UG voids

By adopting stowing/backfilling left out pillars (mostly Sill pillars) can be recovered. It also serves as a working platform, in addition to providing Ground support. Backfill creates space below ground thereby creating sites of Waste disposal and help in the Mining on top. As a replacement of river sand crushed overburden material, Plant Mill tailing, Fly ash, bottom ash, and pond ash can be used as backfill material.

Any adoption of backfill material needs proper evaluation of the effect of backfill on mine stability, conditions during pillar removal and with time lag. It also necessitates study of relative vertical displacements in the backfill by field measurements with the help of embedment strain gauges and vertical extensometers. There are other instruments also used including Earth Pressure Cells (to identify loading trends in the backfill), Borehole extensometers (to measure relative displacement changes in the mine roof and support pillars)



and Biaxial Stress Meters (to measure stress changes in several support pillars and abutments).

Use of Fly Ash

In 2019-20, with 197 power plants using non-coking coal containing an average of 33.32 ash percentages, the amount of fly ash generated is 226.13 million tones. At the 2019-20 level of fly ash utilization, only 187.81 million tones are being used in manufacturing cement, building materials like bricks etc, landfills etc. India's fly ash utilization is quite high and stands at 83.05 percentage (CEA, Min. of Power).

Fly ash is composed of silt-sized material. Its diameter ranges from 0.01-100 micrometer. It is also 25 % lighter than river sand, favorable for hydraulic transportation. It does not need any elaborate screening arrangement at the stowing plant. The Finer particle sizing and spherical particle shape enhances flow ability and blend freely in mixture. It is also lesser hydrostatic pressure on barricade

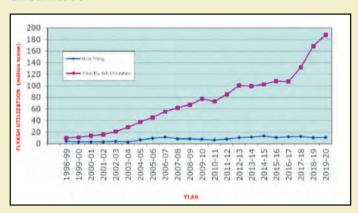


Figure 1: Shows the progressive utilization of fly ash in mine back filling/stowing during the period 1998-99 to 2019-20 [Source: CEA(2020)]

Use of fly ash as backfill material

The above graph shows that 4.17 million tonnes of fly ash is being used for backfilling/stowing during 1998-99 to 2019-20 period. Opencast filling using fly ash and overburden (JSPL-Tamnagr, Manipur opencast mines, Gidhumuri and paturia opencast mine. Underground coal mine backfilling –Jitpuri colliery (SAIL) laboratory and field

experimental of bottom ash as stowing material. Mahagiri mine, IMFA — Cemented hydraulic filling upgraded and higher filling rate achieved. Proper backfilling of underground stopes resulted in free standing backfill wall after extraction of adjacent stope. Also experimentations were conducted to use OB as a backfilling material for underground metal mine. Paste backfilling- fly ash replacement in paste backfill in Rampura agucha mine and Rajpura Dariba Mine of HZL. Attempts are being made to use this system in underground coal mine- Sarni UG Mine, Patharkhera area, WCL

Present study

The present study, aims at developing a suitable paste fill material from fly ash and its transportation system to UG coal mine for stabilization of working as an alternative of sand stowing for increasing % of extraction of coal & to ascertain its cost effectiveness with due regard to safety and environment . Preliminary experimentation of mix optimization is in progress. Also, with the use of fly ash and other waste from thermal power plants the MoEFCC guidelines for 100% utilisation can be to some extent met with. MoEFCC guidelines of 1999 and subsequent norms of 2003, 2009 and 2016 have clearly demarcated the thrust to be given to use fly ash in backfilling.

Conclusion

Fly ash which is available in abundance near underground Manganese mines of MOIL, will be an effective material to backfill the voids. Several researchers have demonstrated its efficacy in stowing, and as a replacement material to river sand for stowing in underground mines and backfilling in opencast mines. Policy framework and national strategy can make it possible to utilize all possible fly ashes in gainful manner. It would mitigate environmental threat; provide sustainable mining and cleaner environment. One area of caution is the chemical composition of fly ash and also it's settling characteristics as well as water retention properties. Detailed research and model studies are required before its use in any underground mines.

सतर्कता जागरूकता सप्ताह की गतिविधियाँ

सतर्कता जागरूकता सप्ताह 2020



श्री मुकुंद पी. चौधरी, सी.एम.डी. मॉयल द्वारा दीप प्रज्वलन



श्री शरत चन्द्र तिवारी, मुख्य सतर्कता अधिकारी, मॉयल द्वारा दीप प्रज्वलन



श्री मुकुंद पी. चौधरी, सी.एम.डी. मॉयल द्वारा संबोधन



श्री शरत चन्द्र तिवारी, मुख्य सतर्कता अधिकारी, मॉयल द्वारा संबोधन





मॉयल अधिकारी एवं कर्मचारियों द्वारा प्रतिज्ञा प्रशासित



सतर्कता जागरूकता सप्ताह की गतिविधियाँ

सतर्कता जागरूकता सप्ताह 2020





सतर्कता जागरूकता सप्ताह के अवसर पर मॉयल, मुख्यालय में वाद-विवाद प्रतियोगीताओं के विजेताओं को पुरस्कार वितरण





सतर्कता जागरूकता सप्ताह के अवसर पर मॉयल, मुख्यालय में निबंध प्रतियोगीता के विजेताओं को पुरस्कार वितरण





सतर्कता जागरूकता सप्ताह के अवसर पर मॉयल, मुख्यालय में अन्य प्रतियोगीताओं के विजेताओं को पुरस्कार वितरण



सतर्कता जागरूकता सप्ताह की गतिविधियाँ

सतर्कता जागरूकता सप्ताह 2020





सतर्कता जागरूकता सप्ताह पर बालाघाट खान में पोस्टर प्रतियोगिता का आयोजन एवं पुरस्कार वितरण





सतर्कता जागरूकता पर बालाघाट खान में कविता व स्लोगन प्रतियोगिता का आयोजन एवं पुरस्कार वितरण





सतर्कता जागरूकता सप्ताह के अवसर पर आर.एन.टी. स्कूल, भरवेली में आयोजित पोस्टर एवं निबंध प्रतियोगीता के विजेताओं को पुरस्कार वितरण



मॉयल सतर्कता विभाग की विभिन्न गतिविधियाँ





सतर्कता अधिकारी द्वारा बालाघाट खान कैंटीन व उकवा खान में निर्माण कार्य का निरीक्षण





मुख्य सतर्कता अधिकारी एवं मॉयल प्रबंधन के साथ त्रैमासिक समीक्षा बैठक





सतर्कता जागरूकता पर बालाघाट पर ऑफ व ऑन लाईन एक दिवसीय वेंडर एवं कॉन्ट्रॅक्टर मीट का आयोजन

मॉयल सतर्कता विभाग की विभिन्न गतिविधियाँ





मुख्य सतर्कता अधिकारी श्री प्रदीप कामले द्वारा गुमगांव खान में निरीक्षण





सतर्कता अधिकारी द्वारा बालाघाट एवं उकवा खान में मैंगनीज अयस्क भंडारण का सत्यापन





सतर्कता अधिकारीयों द्वारा डोंगरी बुजुर्ग खान में स्टोर इन्वेंट्री का निरीक्षण



पोस्टर



श्री गोधन लाल बोपचे, सेल. ग्रेड स्टेनो, बालाघाट खान



श्रीमती अन्नपुर्णा देवांगन, पी.आर.डब्लू, बालाघाट खान



श्री संभव कटरे, सहा. सह. टाईपिस्ट-।, तिरोड़ी खान



कु. धुवी कुंबलवार, आर.एन. टी. स्कूल, भरवेली



कु. नंदिनी लडीया, आर.एन.टी. स्कूल, भरवेली





Learning from Pandemic!!

Sachin A. Gajellewar Chief Manager (Finance)

Every year begins with new resolutions, new dreams, new aspirations and new targets and then we had a year of pandemic. It started well but had different goals in store.

We fought bravely and learnt tremendously!

Life is an illusion, created for us, by God. A supreme power and is the universal truth to which none can deny.

Nothing can stop his plan for our life. There is a reason for everything to happen. A master plan that is created for a purpose. We may never understand his wisdom, but we must trust his will.

We dint know what was his will when the year 2020 arrived. It brought many changes to everyone's life. It was the year of Pandemic. A year of change for the change to happen. A year of learning, acknowledging and understanding.

We always heard and read about change that : "Change is the only constant thing in the world."

This pandemic has decided to change plans of the whole world at the same time. Whatever was planned, took a standby. Unexpected situations were put in front for which we weren't ready and haven't thought of.

We aren't wise enough to understand his plan, but we could surely give it a try. And we must remember what this pandemic taught us through out and is still teaching:

 Believe in God: There were people who never believed in god and there are people who only rely on god for everything in the world.

India being a country of different religions, different cultures and many festivals, experienced a sudden break on all their activities and celebrations. Pandemic forced everyone to believe in God. To believe in the power of universe. It ensure and to seek blessings from elders. To pray for our younger

ones and to bless them. The power of meditation, to relax one's mind, soul and body.

- Love yourself: In our day to day busy life, we always forget to love ourselves. We do take care of family and our work, but we always forget to put ourselves first and to do what we love. Our happiness is the prime aspect of our life to live, our inner peace is most important. We should accept ourselves as we are irrespective of our height, weight and colour. We often try to please others, but what important is, to please ourselves, to forgive ourselves and to accept as we are. WE need to understand that we are human and we commit errors. We commit errors to learn from them and to grow because of them. Mistakes and error are part of our learning and growing. As it is said "Be the best version of you!" How can we be at the best if we have not seen our worst?
- Health is wealth: Early to bed and early to rise makes the person healthy, wealthy and wise. In terms of taking good care of ourselves, Pandemic, fixed a meeting with our natural herbs and resources to which we usually ignore or avoid. Pandemic made us realize how important it is to take good care of our health. It's our body who is going to be with us, till the last breath, so we need to maintain our good health and take utmost care of the body.

Love yourself and the world will fall for your love and the way you love.

There is no other best buddy than your body. It is us, who needs to take care of our of our mental health as well, no one else is going to do.

 Wants are unlimited: We might have become very unrealistic and materialistic. To teach us difference



between wants and needs, this was a terrifying tool used on us. We had learnt that our needs are very less, but our wants are unlimited. We work very hard to earn money to full fill our dreams and desires. But do we only dream and desire about luxury?

This year gave us time to think and analyze that what are our needs and what are desires. What truly matters for us. Pandemic has become a topic of survival and not of the luxury. It became necessary to survive, other things could be taken care of later.

- people around you and the feelings within you. Value people who care for you and who love you. People who genuinely wants to be with and stand with you from sunrise to sunset. We needed to understand that people who have only money are more poor than the people who have genuine and true friends. What is life if you don't have a partner to speak out your heart and share your secrets to? Money wouldn't buy us friends to share our deep sorrows and happiness. The person who had enough friends was the richest in this pandemic.
- Follow your passion: To fulfill the needs and desire, we often ignore about the small things that make us happy, the small #METIME. Take time and create your own #METIME to feel the inner you and to talk to yourself. Follow your heart. Have your own creativity and create time to make your moments special before it becomes only a part of your memory. Instead of thinking, "If I would have had time, I would have done this!"

Action speaks louder than words, doing is better than thinking. This Pandemic gave us time to understand and follow our passion and to enhance our new skills.

 Not to take anyone for granted: We do care and love our people, but we fail to express our feelings to them. We do know how much money we have, but we never know how much time we have.

This pandemic taught us how expressive we must be. We must be kind enough to forgive other and humble enough to ask for forgiveness. We must take time to tell our parents that we love them and seek for forgiveness for the harsh deed done by us. We need to inform them that our world is incomplete without them and we can't imagine our lives without them. Pandemic was the best teacher to teach us the lesson of affection and empathy made difference

- Money is not everything: Days of our lives is already counted and so is every tiny hair of our body. Pandemic taught us that the richest man couldn't buy a single breath without the will of god. What was destined, had happened. Money couldn't buy the moment of laughter we had, the pain we shared and the smiles of ones we cared. It was not the year to make money, but the year to understand the value of money. Importance of saving and spending with care.
- Nature can nurture itself: Human is the creator of many things but the Human itself is the creation of some super natural thing. He taught us that we could forget to take care of our planet, but he will never choose to ignore the well being of his own creation to whom he loved the most. In this pandemic when everything was getting ruined in our lives the Mother earth took time to heal itself. When the humans were locked inside the walls, animals and birds were free with their wings to fly up in the sky. Sky was blue in the morning and dark at night with twinkling stars. The beauty of nature was curing itself. The waters of rivers were flowing fresh without the dusts of companies. This also made us feel the pain of animals who were caged as we were locked in our homes for several days.



- Discipline: Life gets easier when we become more disciplined. Discipline should not be limited only with kids and schools but has to be followed by everyone and every day. Habits need to become rituals that needs to be followed daily and daily habits becomes the parts of your life. Discipline is something to carried out in life through out.
- Traditions made us wise: In the world of technology and modernization, When we were surviving, we got to know that our ancestors were commendably talented. We often get impressed by the alianisation and forget values provided by our ancestors. In Pandemic, we have understood that culture which we follow is the best culture. Where people era fond of shaking hands and hugging each other, we taught the world about the greeting method we follow. Namaste is the best method of giving greetings to one another. The new normal has begun. It's not the end, but the beginning of new era. A twist of modernization with the pinch of tradition
- Attitude of gratitude: We do understand that the
 year was an eye opener for every individual but it's
 time to decide what we should take out of it. The
 attitude of continuous complaining or the attitude of
 gratitude? The life changing lessons or the sulking
 nature. Life never stopped, it moved on. There were
 people who were part of live and now they have
 become just a memory of lifetime.

We must be thankful for everything we see around us. Be thankful to god for giving us our daily meal, for providing the same Natural resources every day.

Water, wind and waves they stayed the same

Fruits and vegetables they still grow the same.

What has changed, is us. Life between and within us.

It was necessary to understand every single thing that this pandemic taught us.

We were supposed to learn things this way. It was god's way to teach us!



"If a country is to be corruption free and become a nation of beautiful minds, I strongly feel there are three key societal members who can make a difference. They are the father, the mother and the teacher."

-Dr A. P. J. Abdul Kalam





Effect of Positive mood and self reliance...

Prashant R. Sawai
Vigilance Officer
Head Office

"Feel good, do good" effects in diverse situations and have shown that it is not limited to the little boost we get. People are more likely to help others when they are in a good mood for a number of reasons and they are more helpful in many ways like contributing money to charity, donating blood and helping co-workers on the job.

What is it about being in a good mood that makes people more altruistic? It turns out by three reasons; Good Mood make us look at the bright side of life, it is an excellent way of prolonging our good mood and good mood increase self attention and self reliance.

Self-reliance is all that it sounds like plus considerably more. In positive psychology, self-reliance has strong theoretical significance thanks to its implications for happiness. You will probably notice some overlap, or at least potential implications for self-worth, self-expression, self-knowledge and for self-acceptance.

When positive emotions open us up to new possibilities, we are more able to learn and build on our skills that lead to doing better on tasks and tests. This year awareness theme is – "Self reliance" so, we will have a look at what being self-reliant really refers to, and how we can develop it within ourselves.

Positive Moods help to enhance self reliance and relieving negative emotions. If we give money to the needy because we will feel bad about ourselves if we do not, or if we give money to the needy because we want them to feel good, we have nevertheless made the contribution in both cases.

In course of developing self reliance, we may lack the knowledge of how to fix our issues. People are not born knowing how to fix problems. It takes access to resources and the willingness to read and study those resources before you can determine the best methods for helping ourselves.

Self-Reliance can solve our problems and abide us to take decisions for ourselves. We feel happy by ourselves, in ourselves and about ourselves, without needing to rely on others. It encourages us to practice self-compassion and self-knowledge. The thought behind

"Self-Reliance" is that, one should be true to oneself, making the best of one's own talents and following one's own instinct.

Self reliance is the ability to depend on self to get things done and to meet our own needs. Like getting a driving license, growing our own food. The capacity to rely on our own capabilities, and to manage own affairs; independence not to be dependent, reliance on own judgment, abilities, etc.

The positive and negative effects of self- reliance may be, the people with high self-esteem get better grades, are less depressed, feel less stress, and may even live longer than those who view themselves more negatively. Self reliance may be positive or negative. In small doses, self-reliance is positive. But when it passes through your approach, it can deprive your commitment and trust.

During developing self reliance few little negativity might actually be good like, it improves memory, people in a bad mood are better at recalling details than people in a good mood. A negative mood can help you better judge certain situations. More motivated people in a negative mood are more likely to stick with a difficult task, and less likely to self-handicap or "anticipate failure on a self-relevant task and create impediments to success".

Think more about what you want than what you don't want. Remember, you have the power to decide where to focus your energy. If you think about what you don't want, you're going to get more of what you don't want, which is a lot of negative emotion and may cause to deviate your self reliance ability. Don't put too much pressure on yourself. Bad things happen but we emerge changed for the better.

Mahatma Gandhi said "it is an action, not the fruit of the action that is important. You have to do the right things. It may not be in your power, may not be in your time, that there will be any fruit. But that does not mean you stop doing the right things. You may never know what results come from your action. But if you do nothing, there will be no result.



"The Concept of Machine Learning (ML)"

Shivam Dutt Rishi
Vigilance Officer
Head Office

Machine learning is a subset of artificial intelligence (AI). It is basically an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it to learn for themselves.

The process of Machine learning begins with observations or data through direct experience, or instruction and looking for patterns in data and make better decisions in the future, based on the observations made and data gathered. The primary aim is to allow the computers to learn automatically without human intervention or assistance and adjust actions accordingly.

The main reason for the rise of Machine Learning was the emergence of the internet, and the huge increase in the amount of digital information being generated, stored, and made available for analysis. Once these innovations were put in place, engineers realized that rather than teaching computers and machines how to do everything, it would be far more efficient to code them to think like human beings, and then plug them into the internet to give them access to all of the information in the world.

A classic and very basic example of this is the You Tube videos popping up in relation to our previous searched and watched videos, which is nothing but the app assessing from the user's previous searched and watched contents and thereby suggesting videos based on the same.

The development of neural networks has been key to teaching computers to think and understand the world in the way we do, while retaining the innate advantages they hold over us such as speed, accuracy and lack of bias.

Neural networks, also known as artificial neural networks (ANNs) which has given rise to the concept of Deep Learning (DL) that is a subset of machine learning and is a computer system designed to work by classifying information in the same way a human brain does. It can be taught to recognize, for example, images, and classify them according to elements they contain.

With the advent of time and technology, Machine learning is changing the way we interact with our surroundings. One such example are mobile devices that has become an important part our daily lives. Our phones and tablets are now powerful enough to run software that can learn and react in real-time, which has opened up the door to lots of cool applications which are in vogue:-

- E-commerce apps- with ML technology provide customers with relevant search results while they search for products. Such functionalities will help your app to recommend the best products depending on user preference.
- Picture editing apps-that offer different sizeable layout choices and selection of various filters that one can apply.
- Weather Forecasting apps-with ML technology can make use of your current location and fetch the possible forecasting of climate on your region.
- Food Delivery / Restaurant apps-A restaurant app powered with machine language can take orders, ask queries and even suggest the best recipe according to the user preference.

Thus the concept of machine learning is not only the present but will continue to evolve with the coming future ahead of us.

"Computers are able to see, hear and learn. Welcome to the future." - Dave Waters





MOIL Limited- Adding strength to steel for the Nation & Fighting against Covid for the Nation!!

"Best Practices By Moil During COVID-19"

1. Contribution to the PM Cares Fund:

a. The organisation rose to the occasion to meet the needs of the nation. MOIL contributed Rs. 45 crores to the PM Cares' fund, which was the 15th highest contribution by a CPSE to the fund (as on 3rd April, 2020).





- Besides all, MOIL employees were among the first ones to contribute one day's salary towards the PM Cares fund amounting to Rs. 0.63 crores.
- 2. Promoting Self Help Group to make masks: To meet the urgent requirement of masks, which were not readily available in local markets, immediate help of Self Help Groups (SHG) in villages near MOIL mines was taken. The local women in these SHG developed capability of making more than 1000 masks every day in a span of around 10 days with the organizing skills demonstrated by team-MOIL. After meeting the company's requirements, masks were also distributed to the local authorities and neighbouring population under CSR.
- 3. Annadhan-Ek Mahadaan: In the time of crisis, MOIL is continuously ensuring help to shelterless families and needy people in and around Nagpur & Bhandara region of Maharashtra and Balaghat district of Madhya Pradesh.



- a. Annamrita Foundation: MOIL tied up with Annamitra, Nagpur and with the help of District administration, more than 4000 meals per day are being organized for the shelterless people at Nagpur.
- b. Patrakar Club: The club is serving 2000 food packets and essential food items to the needy and shelterless people of Nagpur region everyday in association with MOIL Ltd.



- c. Indian Red Gen Society through Collector, Nagpur Balaghat: Essential food items were distributed to needy persons in the remote areas of Nagpur and Balaghat districts from the contribution made by MOIL.
- d. BAIF Mittra
 Foundation: More
 than 500 grocery
 kits were
 distributed to
 extremely poor,
 landless and to
 those who do not



have ration cards in the 6 villages of Bhandara district. The activity was done in coordination with Sarpanch and Gram Panchayat members.

e. **UPAY**: MOIL in association with this NGO, supplied grocery kits to shelterless families.

- f. District Administrations: Essential food items are being distributed to needy persons in association with district administration in nearby villages of Chikla & Dongribuzurg Mines of Bhandara District and nearby villages of Munsar, Kandri Mines of Nagpur District. The activity has been initiated from the time lockdown started. At the same time, employees have also distributed grains to the needy from Balaghat district from their own contributions
- g. Sankalp Foundation: The foundation serves cooked food in North Nagpur for the needy and shelterless people from the contribution contribution made by MOIL.
- h. Office of the Minister for Road Transport and Highways: Micro Small and Medium Enterprises, Govt. of India: MOIL contributed to the noble cause of distributing 700 kits to the needy workers and their families.
- 4. Smart Office Management: MOIL believed in SMART office and this has been a boon during the COVID Crisis.



MOIL had invested in digital infrastructure and that's the reason employees work from home easily due to availability of laptops, e-note sheet system, online procurements and payment systems, SAP, e-banking etc.

5. Communication:

a. Various celebrity joined hands with MOIL for spreading the awareness about various measures to be taken during COVID-19. They



- also apreciated and thanked MOIL for it continuous efforts in helping the needy.
- b. Communications during the period was substantially strengthened with measures such as, posters regarding do's and don'ts on Covid-19 and use of masks/reusable masks circulated widely in MOIL workplaces and townships
- c. Promoting Arogya Setu App amongst employees, their families and ensured that all officers download the application.



- d. Used loudspeakers
 for spreading
 information regarding precautions to be taken for
 Covid-19 mitigation, doing regular rounds in the
 townships and the nearby vicinity for awareness
 in general public.
- e. Disseminated Honorable PM's messages through various channels like social media, radio etc.



f. Used social media platforms as well as radio to widely

to spread awareness messages on COVID-19.

g. A song made with in-house talent for spread of message in employees, families, townships and nearby villages.







7 Way for creating safe and easy-to-remember passwords

Ranjeet Singh Chouhan Sr. Manager (Systems)

We are now living in a Digital world where internet and apps became integral part of our day to day life. It is hard to remember even a single day we have spent without using of any App. The apps we use contain our personal information, thus it becomes more challenging to protect it from the hackers, that's why all the application software running with secure authentication process includes password protection.

In a study commissioned by the analytics software firm FICO, researchers found that 64 percent people are upset over having to create elaborate, complicated passwords that feature a mix of numbers, symbols and capital letters.

Here, I have 7 little tricks to share with you that help you to create and remember all of those tough-to-guess passwords!

1. SENTENCE WHICH MEANS FOR YOU NOT OTHERS

Think of a saying or sentence that means something to you and, if possible, only you. It shouldn't be too short, as it shouldn't be easily guessable, nor so long that you forget it. If it contains upper and lower case letters, great. Symbols? Even better. "Kids are growing very fast #16", for example. Now, take the first letter from each word and you get "Kagvf#16", which is a good password. If you can't think of anything maybe use the title of your favourite song, for example.

2. COMBINE TWO WORDS

Choose two words (again, best if they only mean something to you) and make a different word by mixing up the letters. If you have chosen "Beards" and "Lighters", the base for your new password will be "BLeiagrhdtsrs". It doesn't contain any numbers or symbols, but you can easily strengthen it by following some more examples that we'll tell you about below.

3. TURN VOWELS INTO NUMBERS

This is a trick that cybercriminals already know about, but it could work well as an extra to a different

password method. Taking the previous example, our password "BLeiagrhdtsrs" becomes "BL314grhdtsrs". Adding a few symbols would make it perfect to use.

4. REMOVE THE VOWELS

Instead of replacing them with number such as in the previous example, we can remove the vowels completely. If we use our invented word "BLeiagrhdtsrs", the password would turn out to be "BLgrhdtsrs". Just be sure to add some extra numbers and symbols to make it even more secure.

5. MIX A NUMBER AND A WORD TOGETHER

This one is easy, so let's imagine we use the word "Beards" and the number "28921". So if we join them together, one letter and number at a time, and in reverse, we end up with "B1e2a9r8d2s". All that's missing is a symbol and you're good to go.

6. USE THE ACCOUNT AS A BASE

Using the same password for various accounts and website is a terrible idea, but a simple trick could turn your go-to password into one that could work for different accounts. For example, if you want to sign up to Facebook you could add "FB" to the start or middle or end of the password. You could also try a variation of the website's name by mixing upper and lower cases, symbols, and numbers until you have a password that you like. If we stick with the examples from above, we would end up with this versions: Myfbapw#16

7. FINAL TIP: DON'T FOLLOW THE CROWD

Some attackers aren't just clever, but they also dedicate a lot of time to thinking about how to guess passwords. They know all of these methods, so your ability to out-smart them depends on how you combine the different letters or numbers that form the base of your password. So, try to think a little outside the box, as the more unconventional your password, the harder it is for them to guess it.



भ्रष्टाचार का मुकाबला - प्रौद्योगिकी, एक प्रवर्तक के रूप में

रामरतन उईके सतर्कता अधिकारी चिखला खान

1) प्रस्तावनाः

भ्रष्टाचार प्रमुख मुद्दों में से एक है जिसे प्राथमिकता के आधार पर निपटाया जाना है, क्योंकि इसकी प्रथा ने देश के विकास के हर पहलू को, बुरी तरह प्रभावित किया है। यह हर क्षेत्र और हर स्तर पर वायरस (virus) की तरह फैल गया है। इसलिए विभिन्न संगठनों में भ्रष्टाचार को रोकने के लिए नागरिकों को हर कदम पर, हर समय जागरूक और सतर्क रहना आवश्यक है। भ्रष्टाचार को मिटाए बिना किसी राष्ट्र के विकास की उम्मीद करना लगभग असंभव है। हमारा देश भ्रष्टाचार से बुरी तरह प्रभावित है जिसकी जड़ें बहुत गहरी हैं।

2) प्रौद्योगिकी, एक उपकरण के रूप में:

पता लगाना बहुत मुश्किल है, सहायक दस्तावेज के साथ कार्रवाई को साबित करना और भी मुश्किल है। इसके अलावा, अपराध साबित करने में और भी लंबा समय लगता है, भले ही सभी तथ्य और दस्तावेज उपलब्ध हों।

चूंकि समय को देखते हुए, व्यक्तिगत और मैन्युअल रूप से प्रत्येक पहलू की निगरानी करना बहुत मुश्किल है, इसलिए ऐसी व्यवस्था की खोज करना आवश्यक समझा गया, ताकि उसको लागू करके भ्रष्टाचार को ख़त्म किया जा सके। इसलिए मानदंडों के विचलन की जांच के लिए इलेक्ट्रॉनिक सिस्टम पेश किए गए हैं। इसके साथ ही, भ्रष्टाचार के खिलाफ लड़ने के लिए विभिन्न आधुनिक तकनीकियां सामने आई हैं।

हमारे देश में, हमने पहले ही विभिन्न संगठनों में कंप्यूटर आधारित प्रणाली ऑनलाइन लागू करना शुरू कर दिया है; ताकि सभी गतिविधियों को ऐसी प्रणाली के माध्यम से पारित किया जा सके जहां भ्रष्टाचार होना लगभग असंभव हो जाए।

3) प्रौद्योगिकी को, विभिन्न कॉर्पोरेट क्षेत्रों द्वारा अपनाना और परिणामः

• रेलवे (railway):

पहले, रेलवे मैन्युअल रूप से टिकट दिया करता था। इस

प्रणाली ने भ्रष्टाचार को आमंत्रित किया क्योंकि विसंगतियों की जांच के लिए कोई व्यवस्था नहीं थी। 'आईआरसीटीसी के माध्यम से ऑनलाइन टिकट बुकिंग प्रणाली' को अपनाया गया। धनवापसी के दावों को प्रस्तुत करना भी ऑनलाइन किया गया ताकि प्रत्येक व्यक्ति धनवापसी की स्थिति देख सके। इस 'ऑनलाइन टिकट बुकिंग प्रणाली' ने टिकट बुकिंग प्रणाली की अनुचित प्रथा को रोकने के लिए एक अद्भुत परिणाम दिया है जो पहले मैन्युअल रूप से किया जाता था।

भारतीय रेलवे ने विभिन्न क्षेत्रों में कुछ अन्य प्रणाली लागू की है जो इस प्रकार हैं: -

- भर्ती के लिए ऑनलाइन आवेदन, प्रवेश पत्र, परिणाम की घोषणा
- ♦ रेलवे कंसाइनमेंट बुकिंग, कंसाइनमेंट ट्रैकिंग
- ♦ ई-खरीद और ई-नीलामी

• बैंकिंग सेक्टरः

बैंकिंग क्षेत्र द्वारा दक्षता में सुधार और भ्रष्टाचार से लड़ने के लिए निम्नलिखित प्रणाली लागू की गई है।

- ♦ आरटीजीएस भुगतान
- ♦ एनईएफटी भुगतान
- ♦ ऋण की ऑनलाइन रिहाई
- एटीएम के माध्यम से निधि अंतरण
- प्रौद्योगिकी, कोविड -19 के खिलाफ लड़ाई में सहायक।

साल 2019 के, महामारी के दौरान से ही लॉकडाउन के साथ, पुरे विश्व एवं भारतीय जनता ने जल्द ही एक डिजिटल जीवन शौली की ओर रुख किया - चाहे वह काम, शिक्षा, मनोरंजन या दैनिक आवश्यक वस्तुओं की खरीद के लिए हो। स्थानीय किराना स्टोर अपने प्राथमिक व्यवसाय के रूप में ऑनलाइन ऑर्डिरेंग और डोरस्टेप डिलीवरी में स्थानांतरित हो गए। स्कूलों और कॉलेजों ने देश के कोने-



कोने में लाखों छात्रों के लिए डिजिटल कक्षाओं और ऑनलाइन सीखने के साथ शिक्षा को फिर से परिभाषित किया। और, डॉक्टरों के टेलीकंसल्टेशन और सरकारी निकायों में ऑनलाइन प्लेटफॉर्म के माध्यम से टीकाकरण और अन्य कोविड -19 से संबंधित आपूर्ति की सुविधा के साथ, डिजिटल व्यवधान आम आदमी के जीवन में पहले की तरह प्रवेश कर गया।

• खनन / तेल / ऊर्जा व अन्य क्षेत्र में:

मॉयल लिमिटेड ने भी विभिन्न तकनीकों का उपयोग करना शुरू कर दिया है और कुछ क्षेत्रों में विभिन्न विसंगतियों की जांच करने के लिए इसे स्थापित किया गया है: -

- ई-निविदा (e-Tender): मॉयल लिमिटेड में खरीद के लिए ई-निविदा के लिए जाता है। इसने बोलीदाता को अपनी बोली जमा करने में सक्षम बनाया है
- भुगतान : विक्रेताओं को समय पर भुगतान करने के लिए मॉयल में आस्टीजीएस के माध्यम से ऑनलाइन भुगतान की शुरुआत की गई है।
- बिल ट्रैकिंग सिस्टम : अब मॉयल से जुड़े संगठन दुनिया में कहीं से भी ऑनलाइन देय भुगतान को ट्रैक कर सकते हैं।
- भर्ती: मॉयल में विभिन्न रिक्त पदों का ऑनलाइन प्रदर्शन, आवेदन पत्र जमा करना आदि का अभ्यास मॉयल में किया जाता है। हालांकि मॉयल कुछ अन्य क्षेत्रों में भी देख सकता है जहां भ्रष्टाचार होने की संभावना है

★ सैप (SAP): मॉयल द्वारा साल 2016-17 में एसएपी (SAP) प्रणाली लागू की गई है। अब मॉयल में अधिकांश कार्य एसएपी आधारित हैं। सैप ने मॉयल की कार्य प्रणाली में भारी बदलाव लाया है। सैप के माध्यम से की जाने वाली सभी गतिविधियों का रिकॉर्ड होता है। इससे व्यक्तिगत जवाबदेही में वृद्धि हुई है और इसलिए अधिकारियों और कर्मचारियों के बीच दक्षता और निष्पक्ष व्यवहार सुनिश्चित किया गया है।

4) पूर्ण प्रमाण प्रणाली :

हम कदाचार को रोकने के इरादे से नई तकनीक अपना रहे हैं। हालाँकि, यह प्रणाली अनिवार्य रूप से एक पूर्ण प्रमाण प्रणाली होनी चाहिए। अन्यथा इस व्यवस्था को तोड़ना उन दुष्ट व्यक्तियों के लिए कोई कठिन कार्य नहीं है, जिनका मन और रक्त लगातार गलत कामों में लिप्त होने के लिए संघर्ष कर रहा है। हम बैंक खाते, सोशल मीडिया अकाउंट और यहां तक कि एटीएम पिन को भी हाईजैक करने से अनजान नहीं हैं। इसलिए आगे की विकास प्रणाली पर निरंतर प्रयास करने के बारे में सोचा जाना चाहिए और इसे और मजबूत बनाया जाना चाहिए।

5) निष्कर्षः

उपरोक्त से यह स्पष्ट है कि नई तकनीक को अपनाने से हमेशा नियमों के विचलन को रोका जा सकता है। यह उपयोगकर्ताओं के लिए सतर्कता बढ़ाता है और आंतरिक रूप से जोर देकर कहता है कि पकड़े जाने के डर से कोई भी गलत व्यवहार न करें। दूसरे शब्दों में प्रौद्योगिकी सही रास्ते पर जाने के लिए प्रेरित करती है जिसे 'निवारक सतर्कता' कहा जा सकता है।



"Integrity without knowledge is weak and useless, and knowledge without integrity is dangerous and dreadful."

- Samuel Johnson





Vigilance: A Perspective

Anil Jambulkar Asst. Vigilance Officer

The true meaning of "Vigilance" can be best described by the 3Es: EEE: "Everyone's Everyday business in Every sphere of their Life".

Yes, this description is true to its meaning. Right from the time we wake up in morning to the moment we go to bed at night we remain in state of alertness. In the morning we brush our teeth to freshen ourselves by flushing out the harmful bacteria present in our system. While purchasing any commodities, we often look up at the manufacturing & expiry dates, the MRP, the weight and so on. We purchase vegetables only on ascertaining the freshness and then negotiating their price. We remain Alert while we drive, avoiding any probable accidents by following the traffic rules & regulations sincerely. Because, we know that there are known pitfalls on violation of the laid down rules & regulation. On a new locality or new township, enquire around for the right directions. For a new journey or a new venture, we ask for advises. In a single word we remain "Vigilant" in our everyday business in every sphere of our life.

A few Synonyms for the word "Vigilance" in dictionary are: Watchfulness / Alertness / Awareness / Observation / attention / Caution & Care. These Synonyms aptly describes the true meaning of Vigilance. Synonyms are described in dictionary terms as the "Words or phase that means exactly or nearly the same as another in the same language". Therefore the synonyms words of vigilance can be attributed as replacement to each other. But if one closely look to the embedded meaning of the words of "Vigilance", it may be safe to construe that every synonyms words of Vigilance are not stand alone but are only supplementary to each other. You can be watchful and alert to your surroundings only when you are aware of it. Awareness leads to observation and draw attention to the subject, to act with caution and care.

To remain Vigilant is the right of every individual. But then, any Vigilant Act should always be result oriented. It is best to have a well defined goal oriented act that should be beneficial to a majority of the stakeholders. The true meaning of a result oriented "Vigilant Act" can be discovered embedded in the different alphabets of the word "Vigilance" itself:

V: The goals should be Value based and Valid.

I: The goals should be Impersonal.

G: The Goals are to be Genuine.

I: The act are to be Impartial.

L : The act should be Legitimate and within the Law of Land.

A: The act should be lead to fixing up Accountability.

N: The Results should negate any Nepotism and Nexus.

C: Campaign around the result is to be build up so that awareness can be spread across.

E: The result should be **Enforceable** and should **Encourage** others to follow.

Yes, our Country is steadily changing. Intolerance towards unethical activities is slowly and steadily stepping up. The steady climb of the Rank in the Corruption Perception Index (CPI) of Transparency Internationals over the years is a Litmus indicator of our steady intolerances. In this competitive fast changing world of ours it is best to remember that, for any act to be legitimate there should be transparency in the way it is accomplished. It is imperative that the individuals and the Competent Authorities — be it the Department/Organization or the Statutory / Enforcement Authorities, acts together hand in hand to complement each others. To be effective, the Mantra for any Individuals should be "Do it Right" and for the Authorities "Keep In Touch".





कौशल विकास - एक सकारात्मक प्रयास

नंदलाल टेकन सहा-सह-टंकक सतर्कता विभाग, बालाघाट खान

मानव अपने जीवन में सभी प्रकार से उन्नत रहने के लिए निरंतर परिश्रम करता रहता हैं जिसका मूलभूत कारण है स्वयं में परिवर्तन अर्थात कौशल विकास। प्रत्येक व्यक्ति कार्य करने और विभिन्न गतिविधियों में भाग लेने के लिए अपने कौशल को विकसित करता है। कौशल विकास, व्यक्ति एवं समाज को सकारात्मक सोंच की ओर प्रेरित करने, बेहतर निर्णय लेने, दूसरों के साथ मिल कर काम करने, कार्य को बेहतर तरीके से करने, समय का उचित प्रबंधन करने आदि में महत्वपूर्ण सहयोग प्रदान करता है। यह कौशल अंतराल को निर्धारित करने और उन्हें दूर करने के लिए है। कौशल एक उपकरण की भांती हैं जो किसी भी व्यक्ति की क्षमता तथा कार्यदक्षता को प्रदर्शित करती है, जो किसी भी योजनाओं के सफल कार्यान्वयन के पीछे एकमात्र कारण है।

भारत मौजूदा बुनियादी और नीतिगत ढांचे को ध्यान में रखते हुए कई चुनौतियों का सामना कर रहा है जैसे, अपर्याप्त क्षमता, कौशल विकास की कमी व विसंगति, लामबंदी, मापनीयता, बेरोजगारी, औद्योगिक संस्थाओं के उत्पादन में गिरावट आदि।

कौशल विकास, युवाओं में कौशल अंतर की पहचान करने और उन्हें कौशल प्रशिक्षण और रोजगार लाभ प्रदान करने की प्रक्रिया है। देश के विभिन्न प्रांतों में कौशल विकास प्रशिक्षण कार्यक्रम आयोजित कर भिन्न-भिन्न संस्थाओं में युवाओं को प्रशिक्षित किया जा रहा है। इस कार्यक्रम का उद्देश्य युवाओं की क्षमता को स्वीकार करना और उचित मार्गदर्शन, बुनियादी ढांचे और रोजगार के लिए प्रोत्साहित कर स्वरोजगार की ओर अग्रेषित करना है जिससे की उन्हें उनकी महत्वाकांक्षाओं को प्राप्त करने में मह मिल सके।

देश की युवा आबादी को कौशल प्रशिक्षण देकर रोजगार उपलब्ध कराने के लिए माननीय प्रधानमंत्री श्री नरेंद्र मोदीजी ने साल 2015 में 'स्किल इंडिया मिशन' की शुरुआत की थी। स्किल इंडिया योजना के तहत देश में हर साल कम से कम 24 लाख युवाओं को कुशलता की ट्रेनिंग देने का लक्ष्य रखा गया था। मुख्यरुप से कौशल विकास योजना का उद्देश्य भारत के युवाओं के कौशल विकास के लिये उन क्षेत्रों में अवसर प्रदान करना है जो कई वर्षों से अविकसित है। इसके साथ ही विकास करने के नये क्षेत्रों की पहचान कर उन्हें विकसित करने का सकारात्मक प्रयास है ताकि देश आत्मर्निभर हो सके। इसी क्रम में, 'स्किल इंडिया मिशन' को सफल बनाने हेतु मॉयल लिमिटेड भी अपने स्तर पर अग्रणी भूमिका अदा कर रहा है जो निरंतर समय-समय पर प्रशिक्षु युवाओं को अप्रेंटीस भर्ती कर उन्हें मानदेय के साथ प्रशिक्षण दे रहा है, साथ ही खान के समस्त कर्मचारियों का कौशल विकास कर औद्योगिक उत्पादन के लक्ष्य की प्राप्ती एवं आपूर्ति के लिए निरंतर प्रयासरत है।

औद्योगिक संस्थाओं के कर्मचारियों में कौशल विकास प्रशिक्षण की महत्तवपूर्ण भूमिका -

- यह कर्मचारियों को उनके वर्तमान कौशल को विकसित करने और उनके ज्ञान को बढ़ाने में मदद करता है।
- नौकरी में पदोन्नति और बेहतर कार्य करने के लिए अवसर प्रदान करता है।
- कर्मचारियों को प्रेरित कर उनके कार्यकुशलता के स्तर को बढ़ाता है।
- नई तकनीक और विधियों के अनुकूल होने की उनकी क्षमता में सुधार करता है।
- कर्मचारियों को नवीनतम उद्योग नितियों में सजग रखने में मदद करता है।
- नौकरी या व्यवसाय में संतुष्टि और मनोबल को बढ़ाता है।
- गुणवत्ता में सुधार कर उत्पादकता को बढ़ाता है।
- कार्यप्रणाली में परिवर्तन कर वैष्विक प्रतिस्पर्धा में बढ़त प्रदान करता हैं।

कौशल विकास नागरिकों को सशक्त बनाने, उनके भविष्य की रक्षा करने, व्यक्ति के समग्र विकास तथा देश के विकास के लिए महत्वपूर्ण उपाय है। आज के वैश्वीकरण में रोजगार क्षमता को बढ़ाने में कौशल विकास का उतना ही योगदान है जितना कि शैक्षणिक का। शिक्षा और कौशल किसी भी देश के आर्थिक और सामुदायिक विकास की जड़ें हैं जो राष्ट्र निर्माण में प्रबल परिवर्तन ला सकते हैं। इसलिए कौशल विकास बेहतर समाज, खुशहाल जीवन, रोजगार पैदा कर बेरोजगारी खत्म करने, उत्पादकता एवं गुणवत्ता में सुधार कर औद्योगिक व प्रौद्योगिक क्षेत्रों को उन्नत बनाने तथा देश की अर्थव्यवस्था को मजबूत बनाने के लिए अत्यंत महत्वपूर्ण है और एक सकारात्मक प्रयास भी।

''हमें कौशल विकास को महत्व देने की जरूरत है क्योंकि इस तरह हम बेरोजगारी को खत्म कर सकते हैं'' - श्री नरेंद्र मोदी।







(भारत सरकार का उपक्रम)

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