



KALEIDO SCOPE

STANDING CONFERENCE OF PUBLIC ENTERPRISES



SCOPE Webinar decodes Union Budget 2021



SCOPE reiterates need for empowering women employees in the 'New Normal'



SCOPE Program on 'Gandhian Perspective for Value Based Governance'



MSTC Stimulating e-Governance through innovative e-Commerce solutions



CIN : L27320WB1964GO0026211

DEEP (Discovery of Efficient Electricity Price)

e-bidding & reverse auction portal developed for power procurement by DISCOMS on Short/Medium/Long Term on behalf of Ministry of Power

SHAKTI (Scheme for Harnessing and Allocating Koyala)

MSTC provided a tailor made software solution for execution of the scheme online for allocation of coal linkage for regulated sector

UDAN (Ude Desh Ka Aam Nagarik)

Regional Connectivity Scheme-Developed portal for Ministry of Civil Aviation



Coal Linkage e-auctions

e-bidding platform developed for allocation of coal linkages for non-regulated sectors by CIL/SCCL

e-RaKAM

Developed an e-platform for farmers to sell agricultural produce on pan India basis. The portal is a Joint initiative by MSTC and Central Warehousing Corporation arm CRWC

Agri-Products for NE

MSTC in collaboration with NERAMAC & CRWC has developed a portal for sale of different Agri-produces like Ginger, Pine apple, broom stick etc

M3 MSTC Metal Mandi

Developed 'M3' portal, which is a virtual marketplace for B2B & B2C transactions for sale and purchase of iron, steel and Non Ferrous products especially

Allocation of Mineral Blocks:

Two-stage e-Auction System (Technical Bid with IPO-Initial Price Offer first, then Forward e-Auction) developed for Mining Lease & Composite License on behalf of Ministry of Mines (MOM)

Other Milestones....



Red Sander Wood multi-currency Auctions for AP/Telangana forest Department



Timber auctions for Kerala forest Department



Developed Portal for Export of Petroleum Product for IOCL



TTD Price Quantity Human Hair auctions

www.mstcindia.co.in

www.mstcecommerce.com



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Message by CHAIRMAN



As the Greek philosopher, Heraclitus famously said 'Change is the only Constant', SCOPE in this ever changing environment continues to metamorphose into an Inspiring, Innovative and Impactful organisation but the same could not have been possible without the unremitting support of the Public Sector fraternity, who have actively contributed in our endeavours.

We all saw one of the most challenging times, where the entire life and work scenario underwent a massive transformation, in this challenging environment, SCOPE continued to prove its mettle, determination and fine-tune with the latest disruptions in technology. With the idea of highlighting the role of Public Sector Enterprises (PSEs) as national builders and their dedication to reviving the nation during one of the worst crisis, SCOPE brought out Compendium to showcase the vast reaching endeavours of PSEs.

Pursuant to its four pillars of Policy Advocacy, Capacity building, Programs and Brand building, SCOPE has continuously taken number of initiatives during the last two years to effectively serve the needs of PSEs. SCOPE will continue to create a conducive environment for PSEs to survive and

thrive into world-class organisations and represent them at various platforms worldwide. As skill development is one of the most essential tools to ensure sustainable growth of both individual and an organisation, SCOPE has collaborated with world renowned organisations to facilitate world class skill enhancement opportunities for PSEs.

Women empowerment and gender equality are essential for achieving sustainable growth. Recognising the importance of women in the overall workforce, SCOPE is conducting exclusive studies for women in PSEs and continues to represent their issues at various forums. I recently inaugurated the 31st National Meet 2021 of WIPS held virtually for the first time, on the theme 'New Normal: Opportunities and Risks' for Public Sector women employees. It was heartening to see the vivid participation of women across the country where several issues arising in the new environment were discussed.

In an effort to accentuate and celebrate the excellence in performance of PSEs, SCOPE has also rolled out SCOPE Eminence Awards 2019-20 that have received an encouraging response and I thank our members for their continuous support.

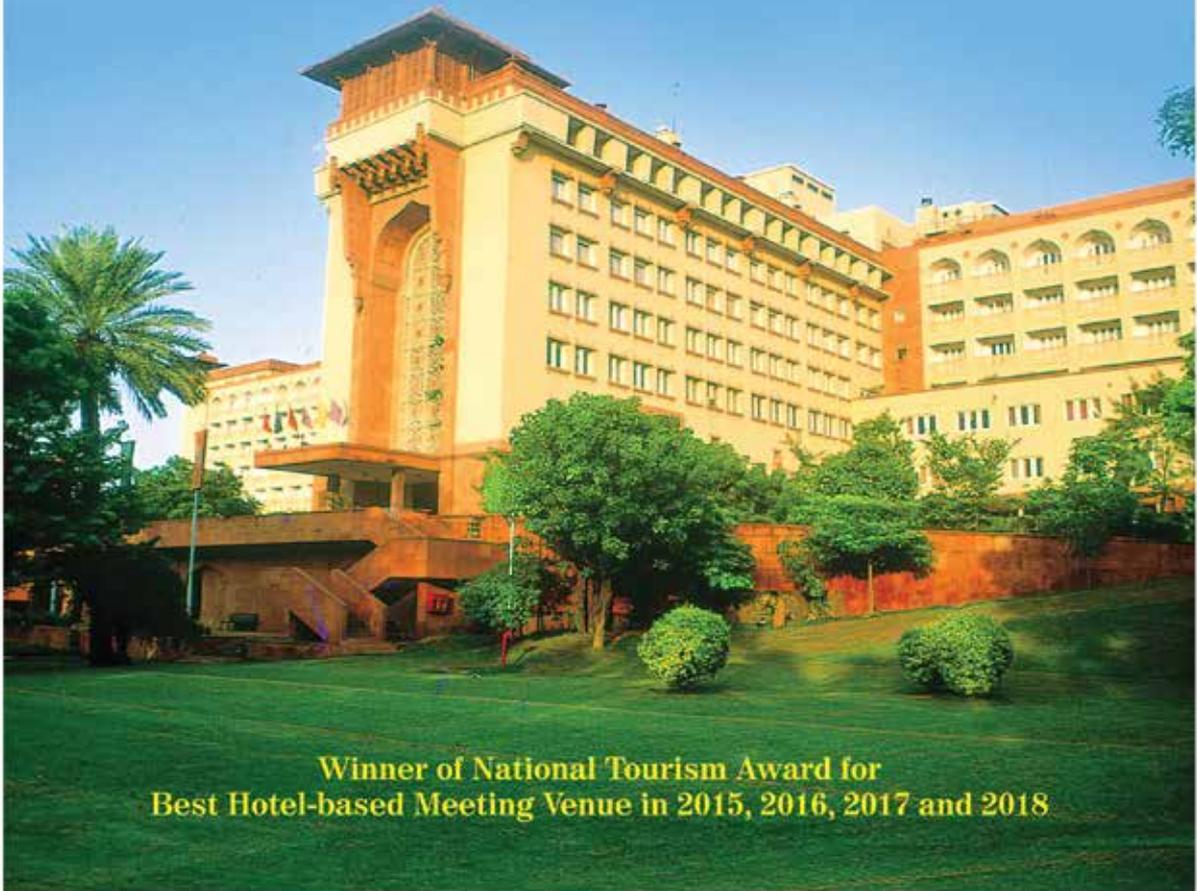
A series of programs and webinars are being planned in the upcoming months and I urge PSEs to use this platform extensively to project their performance and contribution. I also request you to share ideas/suggestions to make the programs of SCOPE more impactful and beneficial.


Rakesh Kumar
Chairman, SCOPE



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Director General's Desk

To bolster the recovery of a coronavirus-ravaged economy, the Government is making efforts to achieve accelerated growth. The recent Union Budget has announced initiatives that will give major thrust to the mission of 'Atma Nirbhar', self-reliant Bharat by focussing on growth of key sectors of the economy and would pave way for a faster rebound of the Indian economy reaffirming positive boost to the various reforms.

Mulling over the impact of the Budget, SCOPE organised its annual program on 'Decoding of the Union Budget 2021' virtually with a panel of experts including Prof. N. R. Bhanumurthy, Vice-Chancellor, Bengaluru Dr. B. R. Ambedkar School of Economics University,

Knowledge Partner Deloitte and other Subject Matter experts who deliberated that the Budget is bound to accentuate growth by invigorating the economic and infrastructural development of the country.

As the Month of March celebrates the power of women in all walks of life including their enormous contribution to the global economy through International Women's Day on March 8, the theme this year is 'Choose to Challenge.' SCOPE, on its part has always attributed great significance to women employees and has been collaboratively undertaking studies with eminent inter-national organisations to gauge the capacity of women employees and enhance their development and performance.

Recently, Forum of Women in Public Sector (WIPS) under the aegis of SCOPE organized its National Meet 2021 virtually on the theme 'New Normal: Opportunities and Risks'. The program attended by over 1000 participants from across the country focused on the rising new challenge of remote working and roadmap for women to excel in their career.

As part of its representation of Labour related issues at various forums, SCOPE represented PSEs at the Meeting of the Regional Committee (EPF) for NCT, Delhi that discussed provisions to benefit workforce under the provisions of law.

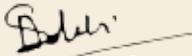
Concerted and vigorous efforts have been made in the recent past to take the apex body to the next level. In the upcoming months, SCOPE as part of its capacity enhancement and initiatives for PSEs has planned several programs to attain competitive edge and demonstrate superior performance.

Programmes & Initiatives launched (since last issue of KALEIDOSCOPE)

- Symposium on Decoding the Union Budget 2021- **3rd February, 2021**
- 31st National Meet of Forum of Women in Public Sector (WIPS) under the aegis of SCOPE – **12th February, 2021**

Programmes & Initiatives in offing

- SCOPE Celebrates International Women's Day- **8th March, 2021**
- Motivational talk with Sister B.K. Shivani, International Motivational Speaker, Brahma Kumaris – **13th March, 2021**
- Joint publication of SCOPE & GIZ, Germany -Low Carbon and Climate Resilient Pathways for PSEs - Training and Capacity Needs Assessment


Atul Sobti

Director General, SCOPE

SCOPE Webinar decodes Union Budget 2021



Mr. Rakesh Kumar, CMD, NLCIL & Chairman, SCOPE; Prof. N. R. Bhanumurthy, Vice-Chancellor, Bengaluru Dr. B. R. Ambedkar School of Economics University; Mr. Atul Sobti, DG, SCOPE; Mr. Anuj Agarwal & Mr. Sumit Singhania, Deloitte Touche Tohmatsu LLP and Subject Matter Experts; Mr. Nitin Bajjal and Mr. Gulzar Didwania participating in the webinar.

Mulling over the impact of the Union Budget 2021, Standing Conference of Public Enterprises (SCOPE) organised a webinar on 'Decoding the Union Budget 2021' on 3rd February 2021. Prof. N. R. Bhanumurthy, Vice-Chancellor, Bengaluru Dr. B. R. Ambedkar School of Economics University; Mr. Rakesh Kumar, CMD, NLCIL & Chairman, SCOPE and Mr. Atul Sobti, DG, SCOPE addressed the webinar.

Detailed presentation on the impact of the Budget provisions was made by senior partners and subject matter experts from

Deloitte. About 500 participants including Board members and senior officials from PSEs attended the webinar through SCOPE's various platforms.

Addressing the participants, Prof. N. R. Bhanumurthy stated that the Budget will accentuate the growth by invigorating the economic and infrastructural development of the country. He said that fiscal policy shall take a lead to enable overall macro-economic stability of the country.

In his address, Mr. Rakesh Kumar said that the Budget stimulates strategic sectors and reflects on

renewed impetus to green initiatives. While highlighting key aspects of the Budget, he reiterated on the constructive role of PSEs in the overall economic development of the country.

DG, SCOPE while appreciating the Budget said that infrastructure, social sector and policy reforms shall prove catalytic for growth. He added that in light of ease of doing business and conciliation mechanism announced, SCOPE Forum of Conciliation and Arbitration (SFCA) can play an important role in the new landscape. ■

SCOPE Program on 'Gandhian Perspective for Value Based Governance'



Mr. Pradipta Kumar Bisoi, Secretary, Department of Posts, Ministry of Communications; Smt. Shobhana Radhakrishna, Veteran Gandhian; Mr. Atul Sobti, DG, SCOPE and Prof. J. S. Rajput, India's Representative to UNESCO's Executive Board during the webinar.

SCOPE organized a Symposium on 'Gandhian Perspective for Value Based Governance' coinciding with 73rd Martyrs' Day on 30th January, 2021.

On this occasion, Mr. Pradipta Kumar Bisoi, Secretary, Department of Posts, Ministry of Communications; Prof. J. S. Rajput, India's Representative to UNESCO's Executive Board; Smt. Shobhana Radhakrishna, Veteran Gandhian and Mr. Atul Sobti, Director General, SCOPE spoke about espousing the ideals and teachings of Gandhiji, especially in these times of predicament. A large number of participants including senior executives from various PSEs attended the webinar.

Budget 2021 to accelerate growth and reinforce self-reliance

SCOPE apex body of Public Sector Enterprises believes that announcements by the Hon'ble Finance Minister shall pave way for a faster rebound of the Indian economy on the growth path. Mr. Atul Sobti, DG, SCOPE

said that the Union Budget shall further affirm the positive boost to the previous reforms announced by the Government. He complimented the Budget proposals giving thrust to Atma Nirbharta mission by focussing

on critical growth sectors like infrastructure, power, roads, ports and health. Government has given much needed boost to Indian economy to retrace the development path and reposition it on the global map, he added.



SCOPE reiterates need for empowering women employees in the ‘New Normal’



Mr. Rakesh Kumar, CMD, NLCIL & Chairman, SCOPE; Ms. Soma Mondal, Chairman, SAIL; Ms. Atishi Marlena; Mr. Atul Sobti, DG, SCOPE; Ms. H. K. Joshi, CMD, SCI; Ms. Sanchita Banerjee and Ms. Kirti Tiwari, Presidents Apex, WIPS during the WIPS National Meet.

Forum of Women in Public Sector (WIPS) under the aegis of SCOPE (Standing Conference of Public Enterprises) organized its 31st National Meet 2021 virtually on the theme ‘New Normal: Opportunities and Risks’ for Public Sector women employees on 12th February, 2021. Mr. Rakesh Kumar, CMD, NLCIL & Chairman, SCOPE; Mr. Atul Sobti, DG, SCOPE and Ms. Atishi Marlena addressed the participants during the inaugural session. Ms. Soma Mondal, Chairman, SAIL and Ms. H. K. Joshi, CMD, SCI addressed the subsequent sessions in the presence of Ms. Kirti Tiwari and Ms. Sanchita Banerjee, Presidents

Apex, WIPS and other WIPS members. The program was attended by around 1000 participants located across the country.

Mr. Rakesh Kumar inaugurating the e-National Meet said that as the country is treading towards ‘Make for the World’, women employees have an indispensable role in achieving self-sufficiency in all industries. He highlighted the need for creating a motivated and secure workspace for women to help achieve gender equality.

Mr. Atul Sobti in his address saluting the spirit of women employees in these times of crisis stated that displaying grit and determination, they meticulously transformed crisis into

opportunity. He emphasized that women employees must focus on being more assertive, confident, aiming for higher goals and reiterated the role of WIPS in empowering women.

Ms. Atishi Marlena said that while COVID-19 created a unique prospect of ‘Work from Home’ for women employees, it also renewed challenges in creating work life balance.

Ms. Soma Mondal in her address commended that amidst the blurring of boundaries between work and home, women employees have risen to the challenge and shown true resilience by adapting efficiently to the ‘New Normal.’ ■

Comments/Feedback received from CPSEs for SCOPE Webinars held on "Gandhian Perspective for Value Based Governance Commemorating Martyrs' Day" & "Decoding the Union Budget 2021"

Recording of SCOPE Webinars are available on SCOPE Website : www.scopeonline.in

Namaskar Sir. Great session. VC Sh. Bhanumurthy speaks his mind. Nice to hear him -

Mr. Ashutosh Vasant
Director RailTel & Member
SCOPE Executive Board

I am delighted and thrilled to attend the webinar and to listen to some eminent personalities and that too on a subject so dear to all of us. I commend the SCOPE team for the flawless execution of the program and most importantly the timeliness tells all about the mammoth coordination and meticulous planning the team might have undergone. I look forward to being part of such enlightening sojourns.

The webinar was great. Especially, what Prof. Rajput and Madam Shobhana said was touching. Great tribute to a great man. Thanks

Very good going.

It was great to connect back with SCOPE after seven years through the Webinar.

Thank you

Excellent thoughts presentation was provided by all means. Very potential knowledge given by all the team concerned members etc.

 With regards thanks for your kind words posted.

Thank you for the wonderful webinar. It was very nice.

It has been really a very good and valuable program. Our sincere THANKS and best wishes

Very Good Program.

Very Happy And Useful To Us.

Many thanks to SCOPE.

Thank You Very Much.

Many thanks to SCOPE. It was nicely organised.

The program was very Apt and Useful, The faculty presentations and QA session were Excellent.

Thanks DG, SCOPE, Mr. Sobti sir for wonderful program.

I thank all SCOPE top management and others who have given valuable webinar which is very much encouraging for knowledge sharing and knowing budgetary news.

Thanks for the updates and sharing, It was a Very Nice Tribute to Mahatma Gandhi Ji

SCOPE in Media

Hindustan Times
5.02.2021 Pg no : 5

SCOPE organises webinar on 73rd Martyrs' Day



Standing Conference of Public Enterprises (SCOPE) organised a Symposium on 'Gandhian Perspective for Value Based Governance' coinciding with 73rd

Hindustan Times
28.01.2021 Pg no : 20

SCOPE organises webinar on Competition Law

Standing Conference of Public Enterprises (SCOPE) organised a webinar on 'Competition Law' in association with Competition Commission of India (CCI).

NPT नवभारत टाइम्स
25.01.2021 Pg no : 11

स्कोप ने CCI के साथ वेबिनार आयोजित किया
नई दिल्ली: स्कोप ने कॉम्पिटिशन कमीशन ऑफ इंडिया (सीसीआई) के साथ मिलकर कॉम्पिटिशन लॉ के विषय पर वेबिनार आयोजित किया। इस वेबिनार का मकसद ब्राह्मों के लिए हिंद को बढ़ावा देने के लिए एक निष्पक्ष बाजार और प्रतिस्पर्धा की अव्यवस्था को बनाना था। वेबिनार में प्रमुख वक्ता सीसीआई के चेयरपर्सन आर सुब्बु थे। कार्यक्रम में स्कोप के डीजी अतुल सोबती, वेल के वरिष्ठ अधिकारी एके शिवारी समेत कई अन्य अधिकारी भी मौजूद थे।

THE TIMES OF INDIA
3.01.2021 Pg no : 8

SCOPE organises webinar on HR strategies

The growing complexities of business has magnified the need for a dynamic and resilient HR function in order to transform workplaces. Deliberating on this, Standing Conference of Public Enterprises (SCOPE) organised a symposium on 'Strengthening HR Strategies in



Emerging Business Environment'. The webinar was addressed by Soma Mondal, Chairperson, SAIL; Ranjan Kumar Mohapatra, Director (HR), IndianOil and Atul Sobti, Director General, SCOPE. Deloitte team comprising of Anandrup Ghose and Mohinish Sinha, Partners, Human Capital gave

NPT नवभारत टाइम्स
09.02.2021 Pg no : 11

आत्मनिर्भरता मिशन को बढ़ावा देगा बजट

नई दिल्ली: स्टैंडिंग कॉन्फरेंस ऑफ पब्लिक एंटरप्राइजेज (स्कोप) का मानना है कि बजट में किए गए ऐलानों से इकोनॉमी तेजी से पटरी पर लौट आएगी। स्कोप के डीजी अतुल सोबती ने कहा कि इस बार का यूनिन बजट सरकार द्वारा पहले से घोषित रिफॉर्मों को और मजबूती देगा।

समय जगत
09.02.2021 Pg no : 8

स्कोप ने केंद्रीय बजट 2021 पर वेबिनार का किया आयोजन



वीर अर्जुन
9.02.2021 Pg no : 11

स्टैंडिंग कॉन्फ्रेंस आफ पब्लिक एंटरप्राइजेज ने केंद्रीय बजट डिकोड करने के लिए आयोजित किया वेबिनार



mid-day
09.02.2021 Pg no : 20

SCOPE: Budget 2021 to accelerate growth and reinforce self reliance

SCOPE (Standing Conference of Public Enterprises), the apex body of Public Sector Enterprises, believes that announcements by the Finance Minister will pave the way for a faster rebound of the Indian economy on the growth path. Atul Sobti, director general, SCOPE said that the Union Budget shall further affirm the positive boost to the previous reforms announced by the government. He complimented the Budget proposals giving thrust to Atmanirbhara mission by focussing on critical growth sectors like infrastructure, power, roads, ports

THE FREE PRESS JOURNAL
10.02.2021 Pg no : 11

SCOPE webinar decodes Union Budget 2021

Mulling over the impact of the Union Budget 2021, Standing Conference of Public Enterprises (SCOPE) organised a webinar on 'Decoding the Union Budget 2021'. Prof. N. R. Bhanumathy, Vice-Chancellor, Bengaluru Dr. B. R. Ambedkar School of Economics University; Rakesh Kumar, CMD, NLCIL & Chairman, SCOPE and Atul Sobti, DG, SCOPE addressed the webinar. Detailed presentation on the impact of the Budget provisions was made by senior partners and subject matter experts from Deloitte. About 500 participants including board members and senior official from PSEs attended the webinar

पंजाब केसरी
9.02.2021 Pg no : 8

स्कोप ने बजट 2021 पर वेबिनार किया

नई दिल्ली, (पंजाब केसरी) : केंद्रीय बजट के विभिन्न पहलुओं और इसके प्रभावों पर स्टैंडिंग कॉन्फ्रेंस ऑफ पब्लिक एंटरप्राइजेज (स्कोप) ने एक वेबिनार का आयोजन किया जिसमें केंद्रीय बजट के विभिन्न पहलुओं पर परिचर्चा की गई। इस परिचर्चा में बेंगलुरु के बीआर अंबेडकर स्कूल ऑफ इकोनॉमिक्स के वाइस चांसलर प्रो.एन आर भानुमथी, एनएलसीआईएस के सीएमडी और स्कोप के चेयरमैन और स्कोप के डीजी अतुल सोबती ने भी परिचर्चा में अपने विचार रखे। अतुल सोबती, डीजी स्कोप ने बजट की प्रशंसा करते हुए कहा कि इंफ्रास्ट्रक्चर, सामाजिक क्षेत्र और नीतिगत सुधारों से समर्थित विकास को गति मिलेगी। उन्होंने यह भी कहा

FE SUNDAY
FINANCIAL EXPRESS ON SUNDAY
7.02.2021 Pg no : 19

SCOPE believes that announcements by the Finance Minister shall pave way for a faster rebound of the Indian economy on the growth path. Atul Sobti, DG, SCOPE said that the Union Budget shall further affirm the positive boost to the previous reforms announced by the Govt. He complimented the Budget proposals giving thrust to Atmanirbhar Bharat mission by focussing on critical growth sectors like infrastructure, power, roads, ports and health. Govt. has given a much needed boost to Indian economy to retrace the development path and reposition it

समय जगत
 2.02.2021 BHOPAL EDITION Pg no : 8

बजट 2021 के बजट से देश की अर्थव्यवस्था होगी मजबूत



भोपाल। सार्वजनिक उपक्रमों का सम्मेलन), सार्वजनिक क्षेत्र के उद्यमों के शीर्ष निकाय का मानना है कि माननीय वित्त मंत्री द्वारा की गई घोषणाओं से विकास पथ पर भारतीय अर्थव्यवस्था की तेजी से वापसी का मार्ग प्रशस्त होगा। एससीओपीई के महानिदेशक श्री अतुल सोबती ने कहा कि केंद्रीय बजट सरकार द्वारा घोषित पिछले सुधारों के सकारात्मक बढ़ावा की पुष्टि करेगा।

THE FREE PRESS JOURNAL
 2.02.2021 Pg no : 16

SCOPE Webinar on 'Gandhian Perspective for Value Based Governance'



Standing Conference of Public Enterprises (SCOPE) organized a Symposium on 'Gandhian Perspective for Value Based Governance' coinciding with 73rd Martyrs' Day. On this occasion, Pradipta Kumar Bisoi, Secretary, Department of Posts, Ministry of Communications; Prof. J. S. Rajput, India's Representative to UNESCO's Executive Board;

THE FREE PRESS JOURNAL
 30.01.2021 Pg no : 14

SCOPE webinar on Strengthening HR strategies



The growing complexities of business have magnified the need for a...

अमर उजाला
 1.02.2021 Pg no : 4

15.02.2021

स्कोप वेबिनार में यूनियन

नई दिल्ली। यूनियन बजट 2021 के कॉन्फ्रेंस ऑफ पब्लिक इंटरप्राइजेज (स्कोप) बजट 2021' वेबिनार का आयोजन स्कूल ऑफ इकॉनॉमिक्स यूनिवर्सिटी ने भानुमूर्ति, एनएलसीआईएल के सीएम तथा स्कोप के महानिदेशक अतुल सोबती ने वेबिनार के प्रभावों पर डेलोइट के वरिष्ठ सदस्यों त रखे। इसमें करीब 500 प्रतिभागियों ने हिस्सा लिए।

एचआर नीतियों के महत्व पर वेबिनार

नई दिल्ली। जटिल व्यवसायिक परिदृश्य में सुदृढ़ व मजबूत एचआर नीतियों के महत्व को समझाने के उद्देश्य से स्टैंडिंग कॉन्फ्रेंस ऑफ पब्लिक इंटरप्राइजेज (स्कोप) की ओर से वेबिनार का आयोजन किया गया। इसे सेल की चेयरपर्सन सीमा सोहन, इंडियन अटिल के एचआर निदेशक रंजन कुमार मोहापात्रा तथा स्कोप के महानिदेशक अतुल सोबती ने संबोधित किया। इस कार्यक्रम में सार्वजनिक क्षेत्र के उपक्रमों के 650 से अधिक वरिष्ठ अधिकारियों ने हिस्सा लिया।

समय जगत
 2.02.2021 BHOPAL EDITION Pg no : 8

बजट 2021 के बजट से देश की अर्थव्यवस्था होगी मजबूत



भोपाल। सार्वजनिक उपक्रमों का सम्मेलन), सार्वजनिक क्षेत्र के उद्यमों के शीर्ष निकाय का मानना है कि माननीय वित्त मंत्री द्वारा की गई घोषणाओं से विकास पथ पर भारतीय अर्थव्यवस्था की तेजी से वापसी का

2.02.2021

आर्थिक वृद्धि और आत्मनि

बढ़ावा देगा 2021 का बजट नई दिल्ली (बीएन)। सार्वजनिक उपक्रमों के शीर्ष ऑफ पब्लिक इंटरप्राइजेज के डायरेक्टर जनरल अतुल सो सौभाग्य द्वारा प्रस्तुत किए गए बजट 2021-22 की सर कि यह बजट आर्थिक वृद्धि और आत्मनिर्भरता को बढ़ा

अमर उजाला
 26.01.2021 Pg no : 8

प्रतिस्पर्धा कानून पर स्कोप की वेबिनार

नई दिल्ली। स्टैंडिंग कॉन्फ्रेंस ऑफ पब्लिक इंटरप्राइजेज (स्कोप) ने भारतीय प्रतिस्पर्धा आयोग (सीसीआई) के सहयोग से प्रतिस्पर्धा कानून पर वेबिनार का आयोजन किया। इस दौरान सीसीआई के चेयरपर्सन अशोक कश्यप शान्ता ने विचार रखे। उन्होंने वेबिनार आयोजित करने के लिए स्कोप नून की समझ विकसित करने और कोप की विशेष भूमिका है।

वीर अर्जुन
 31.01.2021 Pg no : 2

स्टैंडिंग कॉन्फ्रेंस ऑफ पब्लिक इंटरप्राइजेज ने किया वेबिनार आयोजित

वीर अर्जुन वेबिनार... स्टैंडिंग कॉन्फ्रेंस ऑफ पब्लिक इंटरप्राइजेज ने किया वेबिनार आयोजित... (Text is partially obscured and repetitive in the image)

वीर अर्जुन
 2021 Pg no : 2

ग कॉन्फ्रेंस ऑफ पब्लिक इंटरप्राइजेज ने किया वेबिनार आयोजित... (Text is partially obscured and repetitive in the image)

New Compliances Introduced by MCA with regard to Corporate Social Responsibility



Miriam Vandana
Dy. Manager,
Company Secretariat,
BHEL

Background

The Ministry of Corporate Affairs has notified certain amendments with regard to CSR provisions both in Section 135 of the Companies Act, 2013 as well as in the Companies (Corporate Social Responsibility Policy) Rules, 2014.

The new amendments are effective from 22.01.2021. However, in certain provisions effective date of 01.04.2020/ 01.04.2021 has been specifically provided.

The changes in CSR provisions pertain to following main areas:

- Relaxation in the requirement to constitute a CSR Committee.
- Revised calculation of CSR Budget.
- Modification in the definitions of CSR, CSR Policy and CSR Projects.
- Modalities of CSR implementation including expenditure, allocation and monitoring .

- Transfer of surplus and unspent CSR amounts.
- Additional Reporting requirements.
- Penalties.

Relaxation in the requirement to constitute a CSR Committee

Existing provision	Relaxation in case of smaller CSR Budget
Every company having <ul style="list-style-type: none"> • net worth of Rs. 500 crore or more or • turnover of Rs. 1000 crore or more or • net profit of Rs. 5 crore or more during immediately preceding FY shall constitute a CSR Committee of the Board.	Where CSR amount to be spent by the company does not exceed Rs. 50 Lakh. <ul style="list-style-type: none"> • No need to constitute a CSR Committee. • Functions of such Committee shall be discharged by its Board of Directors.

Revised calculation of CSR Budget

i) Revised calculation of CSR Budget if the Company has not completed 3 FYs since incorporation

Existing provision	Amendment for new companies
The Board of the concerned company shall ensure that the company spends in every FY at least 2% of the average net profits of the company made during the 3 immediately preceding FYs in pursuance of its CSR Policy.	Where the company has not completed the period of 3 FYs since its incorporation, the company has to spend at least 2% of the average net profits of the company made during such immediately preceding FYs in pursuance of its CSR Policy.

Reference

Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021 dated 22.01.2021 Notifications dated 22.01.2021 for commencement of interalia Corporate Social Responsibility (CSR) related provisions under Companies (Amendment) Act, 2020 and Companies (Amendment) Act, 2019.

ii) **Revised calculation of CSR Budget if the company has spent excess of CSR requirement:** Such excess amount may be set off against the requirement to spend upto immediate succeeding 3 FYs subject to the following 2 conditions:

- Excess amount available for set off shall not include surplus arising out of the CSR activities, if any.
- Board of the company shall pass a resolution in this regard.

Changes in Key Definitions

i) Exclusionary definition of CSR – what CSR does not include has been expanded

What CSR includes	What CSR excludes
<p>Existing provision:</p> <ul style="list-style-type: none"> • activities undertaken by a company in pursuance of its statutory obligation laid down in Section 135 of the Companies Act in accordance with the provisions contained in these rules. <p>Additional amended Provisions:</p> <ul style="list-style-type: none"> • any activity undertaken by the company outside India except for training of Indian sports personnel representing any State/ Union territory at national level or India at international level. 	<p>Existing provision:</p> <ul style="list-style-type: none"> • activities undertaken in pursuance of normal course of business of the company except pertaining to R&D related to COVID-19 for FYs 2020-23 subject to certain conditions • any activity undertaken by the company outside India • activities benefitting employees of the company as defined in the Code on Wages, 2019 • contribution of any amount directly/ indirectly to any political party <p>Amended/ New Provisions:</p> <ul style="list-style-type: none"> • activities supported by the companies on sponsorship basis for deriving marketing benefits for its products/ services. • activities carried out for fulfilment of any other statutory obligations under any law in force in India.

Note: The earlier definition of “CSR” has been completely changed. The aforementioned existing provisions have been taken from the earlier definition of “CSR Policy” (which has now been changed – refer Point ii below) and the earlier provisions of Section 135 of the Companies Act and the Companies (Corporate Social Responsibility Policy) Rules, 2014.

ii) **Definition of CSR Policy made more strategic**

"CSR Policy" means	
a statement containing the approach and direction given by the Board of a company, taking into account the recommendations of its CSR Committee.	includes guiding principles for selection, implementation and monitoring of activities as well as formulation of the annual action plan.

iii) **New definition for multi-year Project**

"Ongoing Project" means a multi-year project undertaken by a Company in fulfilment of its CSR obligation	
having timelines not exceeding 3 years excluding the FY in which it was commenced.	includes a project that was initially not approved as a multi-year project but whose duration has been extended beyond 1 year by the Board based on reasonable justification.

CSR Implementation – new requirements

i) Formulation of Annual Action Plan

- The CSR Committee shall formulate and recommend to the Board an annual action plan in pursuance of its CSR policy.
- The annual action plan shall include the following: -
 - List of CSR projects/ programmes that are approved to be undertaken in areas or subjects specified in Schedule VII of the Companies Act.
 - Manner of execution of such projects/ programmes.
 - Modalities of utilisation of funds and implementation schedules for the projects/ programmes;
 - monitoring and reporting mechanism for the projects/ programmes; and
 - details of need and impact assessment, if any, for the projects undertaken.

Note: These requirements had been earlier part of the “CSR Policy”. Now the CSR Policy has been redefined to be more strategic inline with the long-term CSR vision of the company and the actual implementation during the year aligned with the “Annual Action Plan”.

- The Board may alter the annual action plan at any time during the financial year as per the recommendation of its CSR Committee based on the reasonable justification to that effect.

• Administrative Overheads:

While formulating the annual action plan, the Board of Directors shall ensure that the administrative overheads shall not exceed 5% of total CSR

expenditure of the company for the FY.

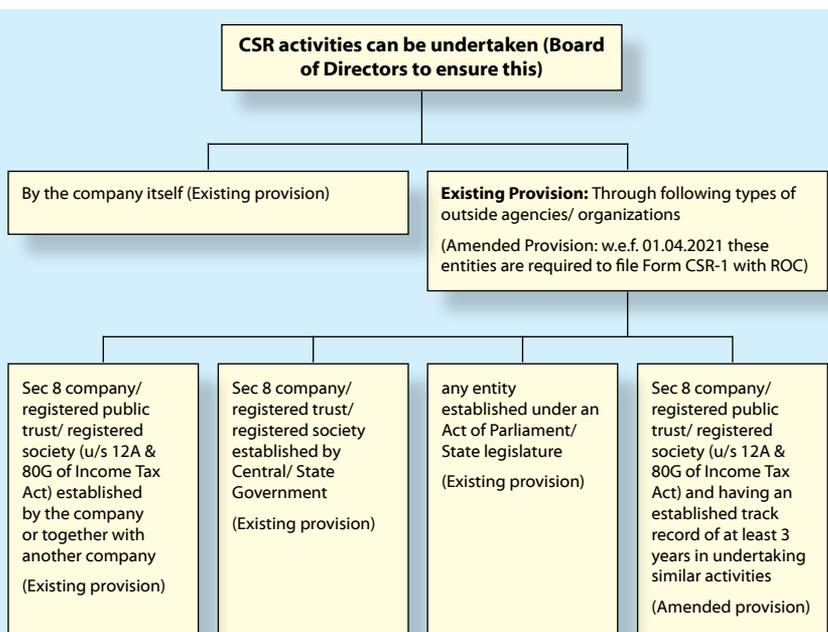
“Administrative overheads” means the expenses incurred by the company for ‘general management and administration’ of CSR functions in the company but shall not include the expenses directly incurred for the designing, implementation, monitoring and evaluation of a particular CSR project/ programme.

Note: The earlier provision for booking of ‘Capacity Building’ expenditure has been removed and accordingly, this provision which allowed booking of this alongwith administrative overheads upto 5% of total CSR expenditure of the company in one FY has been modified.

Impact Assessment

Requirement	Every company having average CSR obligation of Rs. 10 crore or more in the 3 immediately preceding FYs shall undertake impact assessment.
Conducted through	Impact assessment to be done through an independent agency.
Projects covered	CSR projects having outlays of Rs. 1 crore or more and which have been completed not less than 1 year before undertaking the impact study.
Expenditure limit for FY	Lesser of: • 5% of the total CSR expenditure for that FY. • Rs. 50 lakh.

ii) Entities authorized to undertake CSR activities



Note: Provisions with regard to Form CSR-1

- Form CSR-1 shall be signed & submitted electronically by the entity and shall be verified digitally by a Chartered Accountant/ Company Secretary/ Cost Accountant in practice.
- On the submission of the Form, a unique CSR Registration Number shall be generated by the system automatically.
- These provisions shall not apply to CSR projects/ programmes approved prior to 01.04.2021.

iii) Engaging of International organisations:

The company may engage international organisations (to be notified by the Central Govt.) for designing, monitoring and evaluation of the CSR projects/ programmes as per its CSR policy as well as for capacity building of their own personnel for CSR.

iv) Monitoring for ongoing project:

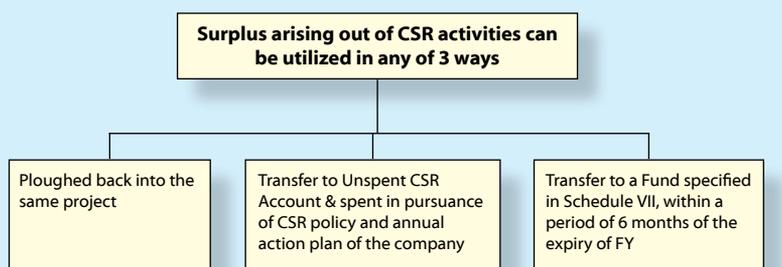
The Board of the company shall monitor the implementation of the project with reference to the approved timelines and year-wise allocation and shall be competent to make modifications, if any, for smooth implementation of the project within the overall permissible time period.

v) Ownership of capital asset created through CSR

- The CSR amount may be spent by the company for creation or acquisition of a capital asset.
- However, this asset shall be held only by one of the following entities:
 - o A Section 8 company or a Registered Public Trust or Registered Society, having charitable objects and CSR Registration Number.
 - o Beneficiaries of the said CSR project in the form of self-help groups, collectives, entities.
 - o A public authority.
- Any capital asset created by the company prior to the commencement of the new amendments shall within a period of 180 days comply with the requirement of this rule, which may be extended by a further period of not more than 90 days with the approval of the Board based on reasonable justification.

Transfer of surplus and unspent CSR amounts

i) Transfer of surplus CSR amounts



ii) Unspent CSR Account: A special account (to be named “Unspent CSR Account for FY _____”) to be opened in any scheduled bank by the Company for transferring unspent CSR amount pertaining to ongoing project for that financial year.

iii) Transfer of Unspent CSR Amount

Unspent CSR amount pertaining to ongoing project	Unspent CSR amount not relating to ongoing project	Unspent CSR amount lying in Unspent CSR Account
Company to transfer amount within 30 days from end of FY to the Unspent CSR Account.	Company to transfer amount to a Fund specified in Schedule VII within a period of 6 months of the expiry of the FY.	In case company fails to spend this amount within a period of 3 FYs from the date of such transfer, the company shall transfer the amount to a Fund specified in Schedule VII within a period of 30 days from the date of completion of the third FY.

iv) Specified Fund in Schedule VII: Until a fund is specified in Schedule VII for the purposes of Sections 135(5) and 135(6) of the Companies Act, the unspent CSR amount, if any, shall be transferred by the company to any fund included in Schedule VII of the Companies Act.

Additional Reporting Requirements

- i) Revised format of the “Annual Report on CSR Activities” to be included in Directors’ Report for FY starting from 01.04.2020 and onwards. The revised format requires additional reporting pursuant to the new amendments including details of impact assessment carried out, amount set-off in the FY, unspent CSR, unspent CSR amount transferred alongwith dates of transfer, capital assets created/ acquired through CSR spent during FY etc.
- ii) Impact Assessment Reports shall be placed before the Board and annexed to the annual report on CSR.
- iii) Reporting to the Board:
 - As part of its monitoring of the CSR activities, the Board of the

company shall satisfy itself that the funds so disbursed have been utilised for the purposes and in the manner as approved by it.

- The Chief Financial Officer or the person responsible for financial management shall certify that the funds so disbursed have been utilised for the purposes and in the manner as approved by the Board.

Display of CSR activities on its website: The Company to disclose the following on its website, if any, for public access:

Existing Provision	Additional Requirement
CSR Policy	Composition of the CSR Committee *
	Projects approved by the Board
	* Listed Companies were already required to disclose the composition of their CSR Committee inline with Regulation 47 of the SEBI Listing Regulations

Penalties

If a company is in default of complying with the provisions of Sections 135 (5) and 135 (6) of the Companies Act, 2013 (i.e. pertaining to CSR spending and transferring of unspent CSR amounts):

Penalty on Company	Penalty on every officer of the company who is in default
Lesser of: • twice the amount required to be transferred by the company to the Fund specified in Schedule VII or the Unspent CSR Account, as the case may be • Rs. 1 crore	Lesser of: • one-tenth of the amount required to be transferred by the company to the Fund specified in Schedule VII or the Unspent CSR Account, as the case may be • Rs. 2 lakh

HPCL: Ushering in a Green Future with Renewable Energy

India has about 374 GW of installed capacity and out of which Renewable Energy contribute about 24% of the total installed capacity in the country (as on 30-11-2020). As per CERC forecast, electricity demand is expected to grow to about 5-5.5% per annum in next 20 years. During the last few years, renewable energy installation is growing at an average CAGR of over 24%. This is mainly because of country's commitment for action on climate change, improvement in technology and CUF of Renewable plants, decline in component prices, easy financing option available etc. Renewable energy plants will play a Major role in meeting the future electricity requirement with Wind & Solar being the major growth drivers.

Further, Govt. of India has set the target of increasing renewable energy capacity to 175 GW by 2022, which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power. Renewable energy installed capacity has increased by over 225% in the last 5 years and stands at 90.4 GW as on 30.09.2020. The breakup is; Wind (38.4 GW), Solar (36.9 GW), Small hydro (4.7 GW), Biomass (9.8 GW).

As per Central electricity authority's final report on optimal

generation mix by 2029-30, Installed capacity of RE is projected to be about 435 GW by March 2030. India surpassed its annual solar PV capacity addition over its annual wind power installation for the 3rd year in a row and now solar energy has become the most focused area in Indian Renewable Market.

Over the years, GoI has taken several initiatives such as introduction of the concept of solar and because of these initiatives, the country has become a global market for development of RE based power project especially new solar projects.

We have strategic advantage of being located in sub-tropical region and the sunlight falls about 300 days in years. Many Govt. schemes are launched to promote/accelerate to tap this solar energy & the development of solar power in the country. Some of the key initiatives launched by Govt. to harness the solar power are;

- Jawahar Lal Nehru National Solar Mission (JNNSM),
- Development of solar parks and Ultra Mega solar park,
- Distributed solar system for A&N island, floating solar plants etc.,
- Setting up of 12 GW of Solar plant under CPSU Scheme,
- Installation of solar street lights,

solar lamps etc,

- Installation of solar pumps under Pradhan Mantri Kisan Urja Suraksha evam Utan Maha abhiyaan (PM KUSUM).
- Off-grid concentrated solar system for heating purpose.

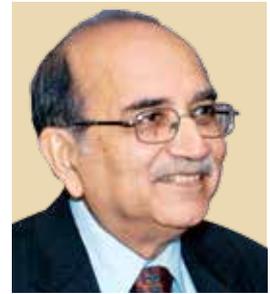
Being an energy company, HPCL also diversified into renewable energy in 2007 by installation of 3.75 MW of wind turbines at Dhule Maharashtra and since then, HPCL have expanded the wind portfolio to total of 100.90 MW capacity Wind farm and about 38 + MW Solar Power (all captive) now. These wind and solar farms are generating revenue and huge captive savings to the corporation.

In addition, during the FY 2019-20, HPCL has offset about 1.83 Lacs Tonnes of CO₂ by generation through wind farm.

Going forward, all the marketing SBU are looking into further solarization of balance installations basis the land availability, power requirement and local state regulations.

For wind power, HPCL is currently selling the generated electricity to the DISCOMs of Maharashtra and Rajasthan. The company also in the process of development of framework for participation in tariff bidding for allocation of wind or solar – wind hybrid plant. ■

Evolving Role of Industrial Engineering in the Post-Pandemic World**



Dr. Rajen Mehrotra*

The pandemic is raging on, almost unabated. That Covid-19 has severely affected the life and the livelihood of people of almost every country in the world is to state the obvious. The impact is significantly higher in countries like India which have a high population. Business organizations, with the exception of a few, have suffered grievously and have substantial reduction of revenue resulting in losses or reduced profits.

When will the world be finally and fully free of the pandemic? When can we expect normalcy to return? Will it be by April 2021? Or by October 2021? Or atleast by April 2022? It is anybody's guess. No one can say for sure. Our Newspapers and TV Channels are airing news all the while about the frantic efforts being made to develop an effective vaccine quickly to prevent the spread of the pandemic and to save the lives of people. Though there are some signs of breakthroughs, it will take time when the phase of the pandemic will be over.

In this situation, what can be the role of Industrial Engineering? Having possibly this in mind, the post graduate student team of National Institute of Industrial Engineering (NITIE), Mumbai organized an "Industrial Engineering Conclave" in the virtual mode on 2nd November 2020. The theme was: "Evolving Role of Industrial Engineering in Post-Pandemic World".

Industrial Engineering

What is Industrial Engineering? In the view of the organizers of the NITIE Program, Industrial Engineering is a discipline "concerned with the optimization of complex processes, systems, or organizations by developing, improving, and implementing integrated systems of people, money, knowledge, information, equipment, energy, and materials. It draws upon specialized knowledge and skills in the mathematical, physical, and social sciences together with the principles and methods of engineering analysis and design, to specify, predict,

and evaluate the results".

This is a fairly comprehensive definition specifying the scope of Industrial Engineering in the present context.

Industrial Engineering Pre-Pandemic

The Government of India (GoI) under the Ministry of Commerce & Industry in 1958 established the National Productivity Council (NPC), a national level multi-partite organization which undertakes consultancy and training to promote productivity culture in India. Also, GoI under the Ministry of Education in 1963 with the assistance of United Nations Development Programme (UNDP) through the International Labour Organization (ILO) established National Institute for Training in Industrial Engineering (NITIE) to create skilled professionals. Later, the word 'Training' was removed and was renamed 'National Institute of Industrial Engineering' (NITIE).

*Past President of Industrial Relations Institute of India (IRII), Former Senior Employers' Specialist for South Asian Region with International Labour Organization (ILO) and Former Corporate Head of HR with ACC Ltd. and Former Corporate Head of Manufacturing and HR with Novartis India Ltd.

** Based on the talk delivered on 2nd November 2020 at the virtual "Industrial Engineering Conclave" on the theme "Evolving Role of Industrial Engineering in Post-Pandemic World" organized by the post graduate student team of National Institute of Industrial Engineering (NITIE), Mumbai where the author was a faculty from 1976 to 1982.

Through the 1950's up to 1990's, many organizations in India had set up a separate Industrial Engineering Department. Persons inducted into the function were people with knowledge and experience in the applications of various industrial engineering techniques and practices.

In 1987 the International Organization for Standardization (ISO), a specialized international agency for standardization composed of the national standards bodies of more than 160 countries came forward with the ISO 9000 series. Large number of enterprises in India in the late 80's and early 90's undertook getting their operations / functions accredited with these standards, facilitation bringing in well documented systems. The most recent versions of the standard, ISO 9000:2015 is presently followed.

When the focus in late 80's shifted to computerization, the practice of instituting a separate industrial engineering department with a full-fledged staff gradually went out of fashion. Also, in 1990's well-developed systems like Enterprise Resource Planning (ERP) began to gain wide popularity. Even today ERP continues to be an on-line real-time system having the capabilities of Material Requirements Planning (MRP), Manufacturing Resource Planning (MRP II), as well as Computer-integrated Manufacturing (CIM) Systems. Without replacing these systems, ERP developed on its own and came to represent the evolution of applications integrated beyond manufacturing coverage involving service sectors and others.

Besides, the Quality Movement in India which had its beginnings

Whether pandemic or otherwise, competitive edge is a must for the survival and success of any organization whether in manufacturing, services or agricultural sector of the economy. This is largely a by-product of every businesses' need for strategic thinking and operational excellence. This in turn is the result of every employee playing his / her part and making the rightful contribution. Identifying and eliminating the inefficiencies in all the activities / operations on one side and implementing the improvement plans on the other are the need of the hour.

prior to the 1980's, grew rapidly during the 1980's and 1990's. The movement kept pace with the productivity improvements and is today well established in most of the manufacturing enterprises in the country. Quite a few organizations in India have won the Deming Prize, one of the highly valued awards relating to TQM (Total Quality Management). Sundaram Clayton Ltd. - Brakes Division - was the first to win it in 1998 and was soon followed by several others in the subsequent years.

After 1990, many organizations in India adopted Lean Manufacturing or Lean Production Systems, often simply

referred as "Lean". Lean Manufacturing, a Japanese concept from Toyota, aims at reducing waste without compromising productivity and quality. The customer defines what is of value to them in the product or the service and for which they are prepared to pay. What actually adds value to the customer becomes clear through Lean Manufacturing. Removing and reducing everything that does not add value helps the enterprises to reduce cost and to improve performance.

Around the same period, in 1993 to be exact, Michael Hammer and James Champy came up with the system of Business Process Reengineering (BPR). This was a very revolutionary approach for improving the efficiency of an organization.

What is BPR anyway? BPR involves a "fundamental rethinking and radical redesign of business processes to bring about dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed." BPR is also defined as "the critical analysis and radical redesign of existing business processes to achieve breakthrough improvements in performance measures."

BPR has been adopted by quite a few enterprises in India beginning from the year 1994. I myself have had the experience of implementing BPR at Sandoz (India) Ltd. where I was once employed.

Also, around this time, benchmarking became a subject of interest. Benchmarking studies were routinely undertaken by several organizations. Benchmarking involves measuring the performance of an organization's products, services, processes and strategy against

those of another organization considered to be the best in the industry, or the “best in class” in the country or even in the world. Benchmarks arrived at with regard to products, services and processes were converted into targets for improvement to be pursued by the various functions in the organization. This marked a clear departure from the industrial engineering practices popular during the period 1950 - 1990.

From 2010 onwards, use of 4G, Artificial Intelligence (AI), Cloud Computing, Internet of Things (IOT), Integrated Systems, POD (a small group of individuals with complementary skills working with a shared purpose to complete a portion of a larger project or campaign) has become an integral part of manufacturing, services and supply chain activities in India. The goal is to improve efficiency and to reduce cost, to speed up the processes and to make it real time, as well as to have adequate safe guards in place against misuse. This has resulted in having to employ persons with higher skills. In some cases, it has also necessitated upgrading the skills of the existing persons to prevent them from being regarded as unsuitable for the enriched jobs.

Industrial Engineering during Pandemic

The sudden outbreak of the pandemic towards the end of March 2020 turned urgency into an emergency. The adoption of digital technology could no more be a leisurely process, a kind of an evolution but has turned into a revolution. Regardless of age and literacy levels, it has become a necessity for all to learn the

applications of digital technology. We could easily perceive this phenomenon even in the case of the interstate migrant labourers. They needed to resort to electronic facilities for booking their rail travel tickets for getting back-home. In the absence of the services of a travel agent, they had to depend on someone known to them to have their rail travel tickets booked electronically.

All this carries a lesson for Industrial Engineers. Speed of action has become a necessity. This applies not only to the Industrial Engineering initiatives to enhance the activities in business organizations of every size, but also to the projects and programs aimed at improving the lot of the common man on the street.

The work, work force and workplace of every enterprise in India was impacted when the pandemic commenced. There were disruptions with reference to work force, material, logistics coupled with demand for products and services having uncertainties leading to challenges on running of the enterprise. Each enterprise be it micro, small, medium, large has tried to work its strategy on trying to operate and survive during the pandemic period, using whatever techniques known to them, and in some cases using industrial engineering techniques.

Smooth functioning of the supply and distribution chains for organizations is a matter of critical importance and hence de-risking the supply chain became a priority for business continuity. Quite many factors have to be taken into account – such as the location of the enterprise, the location of the suppliers and of the customers as well as the types of



goods to be moved and the kind of services to be rendered. And all this has to be achieved without in most cases having any direct operating control over the people involved.

Operations in the Company, both at the plant level and in the office, are seriously affected by Covid-19 situation. In particular, availability of employees has become a huge challenge – the right type of persons and the required number of people. Besides, social distancing and other norms are to be followed strictly so as to prevent any spread of the disease. Therefore, all viable initiatives - aimed at improving the quality of the products, and efficiency and safety of the operations and people - using industrial engineering principles and techniques, are to be executed speedily.

Working from home is becoming the compelling norm where feasible, the new normal in many of the enterprises for several sections of the employees. This practice has come to stay and will become a regular feature even after the pandemic subsides. There may be some adjustments and modifications but the system itself may be made permanent. After all, the gains are substantial, in terms of travel time, expenditure and

office cost. During the pandemic there have been restrictions and voluntary boycotts of items imported from China which have benefited enterprises in certain sectors, especially the automotive sector. This situation is likely to continue for a long time to come during the post pandemic period. Industrial Engineering can play a part in helping to maximize the manufacture of the goods for which there will be an increased demand because of the cessation of imports from China.

Industrial Engineering Post - Pandemic

The New Age Production Industry 4.0 which is based on nine technologies (additive manufacturing, augmented reality, autonomous robots, big data & analytics, cloud, cyber security, horizontal & vertical software integration, industrial internet and simulation) will continue in the post pandemic phase. Each enterprise will have to evaluate what is viable and affordable to implement. Also ensuring safety of all employees will be the prime concern for every employer in post pandemic.

Whether pandemic or otherwise, competitive edge is a must for the survival and success of any organization whether in manufacturing, services or agricultural sector of the economy. This is largely a by-product of every businesses' need for strategic thinking and operational excellence. This in turn is the result of every employee playing his / her part and making the rightful contribution. Identifying and eliminating the inefficiencies in all the activities / operations on one side and implementing the improvement plans

on the other are the need of the hour. The Industrial Engineering department in most companies has become redundant, but the principles involving improving performance of every resource and function continues to be used, so as to improve efficiency and effectiveness. This thus from design to execution involves tasks such as data collection, data analysis, identification of improvement areas, discussion with concerned personnel and crystallizing the action plans which need to be carried out with speed, accuracy and excellence.

An Industrial Engineer's primary job of refining the manual work content using ECRSS (Eliminate, Combine, Reduce, Simplify, Substitute) will continue, as in the past, though the same may be done by somebody else. However, there is an urgent need for achieving higher efficiencies in our activities / operations. Robots may be the ultimate solution but they are far too expensive and are likely to be out of reach at present for most enterprises in India. Hence Industrial Engineers will have to look for cheaper remedies, such as low-cost automation.

Hygiene, health and safety at workplace will continue to be the major concerns in our organizations. Standards of hygiene may have to be raised to avoid spread of such pandemics in the future. Organizations will also be required to comply with the new regulations to meet the Sustainable Development Goals that India has agreed to pursue as its State policy.

Strategic thinking and speedy implementation are the key to the success of Industrial Engineering in any organization. This requires

a very close coordination with all the persons impacted by the changes and the initiatives, such as the executives, workers and trade union representatives. In particular, Industrial Engineers will have to collaborate and coordinate closely with the HR functionaries and the Line personnel of the company.

Conclusion

The post pandemic phase is bound to be a challenging period for all organizations. The immediate focus will naturally be the survival and the growth of every business in various sectors.

The pandemic phase has taught enterprises new methods of operations plus speed of action has become a necessity. Hence in the post pandemic phase the need for effective and efficient systems and procedures for all enterprises whether working on projects, manufacturing, services, education, health care and agriculture will be the need of the hour. Also, work from home, virtual meetings, webinars, distance learning will continue in a modified form. Industrial Engineering initiatives need to be undertaken in improving the functioning of enterprises in micro, small, medium and large plus improving the lot of individuals working in the informal sector of our economy.

Industrial Engineers need to rise to the occasion by implementing the needed changes speedily, making full use of all the recent technical advances. At the same time, they have to ensure that a humane work environment is maintained during the post pandemic period as well. We all need to ensure: "No Rona During or After CORONA but Karna". ■

Training – A Study for Work!



Prof. (Dr.) Dewakar Goel*

“There are no shortcuts to any place worth going”

~ Beverly Sills

We have witnessed 23% increase in the passenger movement per year in India during last years and it is anticipated that same trend will continue for another ten years making India number one in domestic sector and among first five in International sector. The association of International Air Transport Association (IATA) and Policy framework of International Civil Aviation Organization (ICAO) in the field of training is considered as a boon which helped Aviation industry to grow in India tremendously. The role and responsibility shouldered by training institutions of airport operators, airlines and other agencies needs to be given the credit for enhancing the performance level of Aviation personnel which gave rise to this growth. Having said so we need to appreciate the importance of training and its impact on Aviation growth.

When we talk about training, it signifies imparting knowledge and skills to the employees so as to perform the task as per

requirement of the job. The job of a trainer is like that of a civil engineer who maintains the pavements for filling up of the manholes. The engineer looks for the material and the techniques to fill these holes. He/she also identifies the causes and while filling the manholes, he takes care that there should not be any water retention on it because as per his/her findings, the potholes occurred due to water retention. Similarly, a trainer needs to identify the knowledge gaps of the trainees so as to fill up them with required knowledge and skills. Training can be of technical nature, non-technical nature, and soft-skills which also relates to personal development of employees. Every avocation has got the requirement of training whether it is in the manufacturing, marketing, finance, HR, logistics, and every technological field. Organizations prepare training modules as required for their working.

During last two decades, we have seen that training has become an important area for enhancing the

performance level of the employees and it has become essential systematic activity. Pre-training analyses are done and training modules are designed accordingly. Concept of on-the-job training has gained considerable importance and post training feedback is undertaken as a process of evaluation so as to know whether the desired outcome has reflected in the performance level that gives rise to the concept of train and re-train.

Now, let us talk about training in Aviation, which is quite different from the training in other sectors. Why it is different since aviation is a unique field where you do not get the manpower readily available in the market to make use for effective working. We create foundation of competencies keeping in view of organizational objectives. The manpower planning is done for short-term and long-term and jobs are created as per industry's requirements. Job specifications and descriptions are discussed with the line managers to induct right kind of manpower. The next

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step comes in generating expertise from amongst the manpower inducted so as to assign the roles. We can get qualified experienced people for every industry except Aviation as the roles and responsibilities are different. Technical or non-technical graduates or post-graduates in management cannot be utilized straight away in aviation sector because the nature of job is unique.

Let us come to the micro-level in understanding the training aspects of Aviation industry. We can take the example of Airport manager who is responsible for managing various activities of terminal management with the focus on passenger facilitation. It requires communication, co-ordination and control. For a common man, job looks like hotel industry but it is not so because the customer for the hotel and air traveler have got entirely different requirements. They require some common facilities like, restroom, lounge, restaurants, waiting area, toilets, telephones, customer-care counters, proper air conditioning, cleanliness, great ambiance, and overall the welcome with a smile. Airport manager requires great amount of knowledge relating to requirements of passengers because in Aviation industry, the entire focus is on passenger facilitation. The surveys are done by Airport Council International (ACI) for giving Airport Service Quality (ASQ) ratings on 5-point scale for all International airports of the world, classifying them as per flight and passenger movement. Here also, basis of grading is feedback from the passengers. The airport manager has got great responsibility of meeting the needs of all stakeholders. May it be, immigration, customs,

During last two decades, we have seen that training has become an important area for enhancing the performance level of the employees and it has become essential systematic activity. Pre-training analyses are done and training modules are designed accordingly. Concept of on-the-job training has gained considerable importance and post training feedback is undertaken as a process of evaluation so as to know whether the desired outcome has reflected in the performance level that gives rise to the concept of train and re-train

police, CISF, Airlines, taxi operators, parking contractors, security agencies, various travel requisites shops, housekeeping staffs, Airport Operation Control Centre (AOCC), air worthiness, and his own staff deputed for terminal management looking after facilitation. The job is multi-dimensional. He/she needs to have knowledge of air side management also whether it is for apron, air-traffic control, fire section, parking bays, runways,

hangers, and all areas because if a customer comes with a query as to why his relative has not come out though the flight has landed 30 minutes before, the knowledge of air side management becomes handy when he/she knows time spent by the aircraft on taxi way and location of parking bay. Also, about the time consumed in arrival of unaccompanied baggage on the conveyer belt. See, how different is the profile of airport manager in comparison to the profile of hotel manager.

Though, Now-a-days, we are hiring management post-graduates for both these jobs. The hotel industry prefers diploma/degree in Hotel Management as compared to MBA.

If we look back three decades down the memory lane, the non-graduate unemployed commercial pilots were being inducted as airport managers and the experience showed that they were far more effective as excellent performers as airport manager as compared to present day MBAs mainly due to the strong base of air side operations knowledge and other aspects of Aviation. The author recalls when he conceptualized 360-degree performance appraisal in the Aviation industry because in the Aviation sector, we have to come up to the expectation of every stakeholder not only the passengers.

The Aviation training is multi-dimensional. We talked about airport manager whose performance is before the public. Let us talk about air traffic controller who is responsible for proper separation of air crafts to avoid collision and safe landing and take-off of aircrafts as per flight plan. They work on radar whether it is on

radar for area control, reporting and approach or fundamental on tower. We cannot get air traffic controller in the market. We have to make him/her. Because the basic knowledge of Physics, Mathematics, or electronics and theoretical knowledge of radars may be available in the markets but how to function as an air traffic controller is a different task. It takes 3 to 5 years by imparting knowledge by training, that includes theoretical knowledge by way of classroom teaching and on simulators followed by on-the-job training. They need to acquire various ratings before allowing them to act as air traffic controllers.

Training is the most important aspect of Aviation industry. Take the example of pilot. It takes years to obtain commercial pilot license with multi-engine aircraft rating and flying hours for inducting by the Airlines. But here also, they don't become the pilot unless they are imparted on-the-job training after successful completion of various parameters. The concept of trainee pilot is relevant to be quoted here.

Now comes the question of technical training for Aviation personnel which may find similarity to other industries when it comes to the field of civil, electrical, electronics, and automobile industry because we cannot maintain the airports unless the building and runways are maintained to the world standards. Our runways are flexible pavements with traditional bitumen and other materials. Runway maintenance is not like road maintenance because continuous movements of aircrafts releases a great amount of rubber on the runways which reduces the required friction



level. We cannot afford to have slippery runways, skidding cannot be thought about. Engineers working in Aviation use modern equipment for testing the friction level. Again, there is scientific process of rubber removal in order to maintain required friction level. Now, training becomes an essential requirement for engineers to undertake this task. It is a unique activity specific to Aviation industry.

Fire and Rescue operation is another important area where we maintain water levels depending upon aircraft movements. Various categories like, 7, 8 and so on are specified as per International standards. City Fire station and fire station inside airports are different. The crash fire tenders (CFT) are also different. At the airport, we don't look for equipment to reach to the high-rise buildings. Here, the requirement is the speed of the vehicle. It may attain over 100km/hr within few seconds. The aircraft fire is mainly due to air turbine fuel. Therefore, we have equipment for foam forming besides water, spray guns with very high velocity. The training to the fire personnel working for rescue operation

is entirely different because they need to carry the injured passenger on their shoulders within shortest possible time to casualty centre at the fire station. They cannot afford to waste time for calling stretchers. Various training courses are designed such as, basic fire training to specialized refresher course.

Now we come to Cargo operations. Across the world, around 7% cargo movement is done by air. Rest is through sea via ships. If we think in financial terms then this 7% constitutes a major share. Let us see what is different in aviation cargo training and other supply chain management. Dangerous goods regulation is an important area for training. It is mandatory for every cargo personnel to successfully complete the courses relating to DGR. Various other fields are there which requires expertise to be acquired by training. Perishable cargo needs special care with different kind of supply chain management. We need to train the people for maintaining dwell time. Now, we are aiming for 8 hours dwell time from air to truck. It cannot happen without on-the-job training.

Aviation training is not only unique and different from requirement point of view but it is quite different in practice also. There is no hit and trial. The rules and regulations are laid down and the norms are fixed by way of International Civil Aviation Organization (ICAO) Anex. 1 to 19 which takes care in 360 -degree form covering all areas of Aviation, training and management. Safety and security are on the top priority list in the Aviation sector across the world. The threat perception is very high which requires pro-active management. Successful completion of Aviation security course is mandatory for all aviation personnel. Specialized courses are designed for inspectors, who are exposed to periodical training to keep them abreast with latest techniques. Bomb detection and disposal squads (BDDS) function as a separate unit for all airports where the need is to train the sniffer dogs and this training is specific to Aviation.

Manpower is costly affair after air turbine fuel. How to reduce cost? Aviation training comes very handy in reducing the manpower. One-way artificial intelligence works and on the other side, we train the people with multi-skilling. You may find an air traffic controller at Agatti airport in Lakshadweep Islands performing the job of airport manager undertaking the task related to commercial, finance, HR and public relations. Multi-tasking can only come by way of imparting knowledge relating to multi-discipline. For performance, you don't require only knowledge and skills but



abilities are major factor.

There are roughly 25 areas of operations in Aviation industry if I take into account the jobs of all the stakeholders. It is impossible to discuss training needs of all disciplines but one aspect is common for all which speaks about on-the-job training periodically.

We look for making the institutional managers in Aviation industry in order to ensure that besides his/her own discipline, the Aviation personnel has got substantial knowledge because if we talk about skills level, only 5% technical and professional skills are required at the top level in hierarchy with 35% managerial and decision-making skills. At middle level, requirement becomes 20% each at above areas. However, at junior level, 35% technical and professional skills are needed and only 5% decision and managerial skills. We must appreciate that balance 60% skills are common for all levels, which is popularly known as Human Relations skills. The soft skills mainly focus on communication with the concept

of empathy as key for success. In Aviation industry, we are serving the people where the passenger expects that you are receptive and listening to his problems and is capable of providing solutions. Why I talked about multi-skilling and concept of institutional managers because a passenger is in hurry. He/she wants to look at your smiling face with welcoming attitude and expects that you are attentive in listening to him/her keeping aside your official and personal problems. The major population is there in cabin crew. In the Indian context, over 40,000 air crew personnel are on the job in airlines. They are provided soft-skills training to retain smiling face all through in the flight, right from welcoming the passenger and after landing. Do we really listen or hear? It's a major issue for aviation personnel dealing with public.

The growth in the Aviation industry is tremendous and its continuance is undoubtedly dependent on training. For that we need to have pre-training needs analysis and post training needs analysis periodically for all disciplines. ■

COVID-19

Vaccination Drive in India



Dr. Sandeep Sharma
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Limited

Controlling the rate of new COVID-19 cases - Indian Response

Due to the COVID-19 Pandemic, the year 2020 was an inflection point for humanity, industries, businesses & the global economy. But the pandemic did not deter us in India. We rose & stood as one, with a proactive & pre-emptive approach to mitigate the pandemic, strengthening our health care infrastructure and thereby successfully responding to this unprecedented crisis.

India has been able to contain the spread of the disease owing to a resolute leadership which brought every sector together in a collaborative mode. An early lockdown and subsequent phased unlocking, quick identification through testing & tracing, as also adoption of COVID appropriate behaviour by the public, helped in keeping the case overload relatively low as compared to some other countries which did not act with a pre-emptive plan.

COVID-19 Pandemic situation in India is gradually improving,

as we have been able to control the pandemic. COVID-19 active cases in India continue to decline in a steady manner since mid-sept. 2020.

Cause of decreasing number of COVID-19 cases in India may be attributed to the thickly populated geographical areas in India leading to a sort of herd immunity, hygiene issues as we are exposed to microflora through inhalation of air and ingestion of food & water leading to a strong innate immunity. BCG vaccination, majority of young population & less of elderly population in India has also played a major role in overcoming the pandemic in India.

Across the world COVID-19 situation is still worrisome. The graph of new cases is still rising in USA, UK, Brazil, Russia & South Africa, where they are facing the 2nd & the 3rd wave of this pandemic. The curve of, rise in the number of new cases, mortality & hospitalizations are more in these 2nd & 3rd waves, of the COVID19 Pandemic.

The surge in number of new

COVID19 cases in US & Europe was attributed to the New Year & Christmas festive season, which indicates that standard approaches such as isolation, contact tracing & monitoring here, are now being overwhelmed in the face of mass infection.

In India we are just continuing with our 1st wave of COVID-19 pandemic. Most of the affected countries have a population which is far less than Indian population. Therefore, still we need to be careful as a large section of our population is still left untouched by the virus & is vulnerable to catch this viral infection. Hence, we cannot afford to lower our guards for prevention and protection from COVID-19.

For sustaining & preserving these gains, we need to follow COVID appropriate behaviours, testing, contact tracing, quarantine of contacts & isolation of active cases. If we are not alert regarding them right now, then few COVID positive cases can lead to an exponential rise of new cases & they will form clusters leading to the 2nd & 3rd wave of the pandemic in India.

Sources: MoH&FW, WHO & learnings from the Scientific Fraternity.

COVID-19 Vaccination drive in India

Vaccine is a potent weapon in the war against COVID-19, and never in the history of mankind, we have so many vaccines, been developed in record time. India has an advantage, as it is a vaccine manufacturing hub and we are already ready with several good vaccines with more in the pipeline. We need to get vaccinated by any of the vaccines that is available, as the priority today is to contain the disease.

To preserve what we have gained & to further prevent transmission of this virus, COVID-19 vaccination drive was sequentially rolled out in India from January 16th. This is in accordance with the WHO- Scientific Advisory Group for Emergencies (SAGE) strategy i.e. Phase -1 of vaccination shall be rolled out when there is extremely limited vaccine availability for 1-10% of the National population, Phase -2 shall be rolled out when there is limited availability of the vaccine for 10-20% of the National population & Phase -3 shall be rolled out when vaccines are available in moderate quantities, to cover 21-50% of the National population.

In India, during the first phase of vaccination one crore health-care workers and two crore frontline workers shall be vaccinated as they are the most vulnerable & most exposed group, to COVID-19 infection. This shall be followed by the second phase of COVID-19 vaccination drive in which 27 crore population above 50 years and those below 50 years with comorbidities shall be vaccinated.

Govt. of India has ensured that there is enough stockpile of

vaccines for the priority groups in the first phase. Aim of COVID-19 vaccination right now is to control the pandemic rather than eradication of the disease.

Initially two vaccines are being used for COVID-19 vaccination in India that is COVISHIELD and COVAXIN. Both have received emergency use authorization through an accelerated approval process. Both vaccines have established safety and efficacy (immunogenicity) through a well prescribed regulatory process.

COVISHIELD i.e. Oxford AstraZeneca vaccine is being manufactured by Serum Institute of India and COVAXIN is being manufactured by Bharat Biotech in India. Other four vaccines which are under trials in India & shall be indigenously manufactured in India are:

- Zydus Cadila.

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- Sputnik V developed by Gamaleya Institute in Russia.
- Biological Evans based in Hyderabad.
- Genova based in Pune.

COVISHIELD has received emergency use authorization & COVAXIN has been given emergency use authorization under clinical trial mode

COVAXIN inoculation is accompanied by 3 documents

- Fact sheet which is provided to the beneficiary.
- Consent form in regional languages.
- Adverse Event Reporting Form where the beneficiary has to report any adverse event for first 7 days after vaccination.

Both vaccines are given intramuscularly & show high levels of protection, however it is not clear that how long this protection will last. So these vaccines are safe with high levels of efficacy. Further effectiveness of these vaccines refers to how well it performs after mass vaccinations. Further vaccine effectiveness for an individual, depends on various factors, such as age, underlying co-morbid conditions & medications people are taking for these conditions.

There is a gap of 28 days between 2 doses and vaccine effectiveness begins 14 days after receiving the second dose. So even for vaccinated persons COVID appropriate behaviour is mandatory & it can be concluded that still we are not in a position to lower our guards.

Follow up of any Adverse Event Following Immunization (AEFI)

For COVAXIN there is active

follow up of any AEFI, where a medical personnel will daily inquire for any AEFI.

While in case of COVISHIELD there will be a passive follow up for 30 minutes in the observation room at the session site. All AEFI are captured at each session & are categorized into mild, moderate & severe AEFI. Anxiety & hysteria are also recorded although they usually subside in few minutes.

AEFI are reported & tracked on real time basis in the CoWIN portal.

Medical First Aid kits are available at each session site to manage any reaction/ AEFI. There are AEFI management centres at block level & at district level. AEFI Surveillance management System is supervised & monitored by District, State & Central AEFI Committee.

COVID-19 Vaccination sessions in states shall be organised to a minimum of 4 days per week so that non - COVID medical services are not affected.

COWIN Vaccine Delivery Management System

It is a unique digital platform which will provide real-time stock of vaccine stock, their storage temperature individual tracking of vaccine beneficiaries, automated session allocation for preregistered beneficiaries, their verification & generating a digital certificate upon successful completion of their vaccine schedule.

Vaccines shall be airlifted to 4 Government Medical Store Depot (GMSD) Depots in Karnal, Chennai, Mumbai & Kolkata.

From these 4 GMSD Depots vaccines shall be shifted in



refrigerated insulated vans to the 37 State & Union Territories Vaccine Stores and then to District vaccine stores in refrigerated insulated vans.

From District vaccine stores, vaccines shall be distributed to the subcentres & session sites through vaccine carriers.

There are Temperature Trackers established in each GMSD, State & District vaccine Stores. These stores upload the information on a real time basis about the temperature inside the facility on a central server. Program managers can monitor any sudden dip or sudden rise in temperature, so that corrective action can be taken.

Existing logistic management & real-time temperature monitoring are implemented across 2900 cold chain points across India.

CoWIN (COVID Vaccine Intelligence Network)

The application has the data of Health Care workers who are the first in line to get the vaccination. There is no need of self-registration for health care workers &

frontline workers, as their bulk data has already been pre-populated on the CoWIN vaccine delivery management system.

For the second phase of vaccination

When we will come to the population priority groups, provisions of individual registrations are being created. Provisions are being made in the CoWIN portal for online self-registration, choosing the centre for vaccination, day & time for vaccination. Various platforms could be opened for the purpose of self-registration like Aarogya-Setu App, helplines, Interactive Voice Response System (IVRS), web-portal, etc. For areas where internet connectivity is an issue, an option of seeking an appointment for vaccination through walk-ins at your COVID vaccination Centre.

CoWIN system electronically allows automated session allocations for vaccinations. Beneficiary vaccination shall be digitally captured & next due dose will be digitally informed to the beneficiary. Digital acknowledgement will be sent to the beneficiary. SMS in



12 regional languages shall guide the beneficiaries & the vaccinators. Unique Health ID (UHID) shall be generated and after receiving 2nd dose of COVID-19 vaccine QR code based digital certificate shall be issued to the beneficiary which they can store in their mobile / Digilocker.

Govt. of India Guidelines regarding COVID-19 vaccination

Govt. of India has issued COVID-19 operational Guidelines, COVID-19 Communication strategy & FAQ regarding COVID Vaccination, to streamline the vaccination drive and to overcome anxiety/hesitancy regarding COVID-19 vaccination, thereby increasing the vaccine acceptability.

In India special precautions & contraindications for COVID-19

Vaccination, which need to be taken care of by all:

- **Authorized Age Group:** At present COVID-19 vaccination is indicated only for persons

who are 18 years and above.

- **Co-administration of vaccines:** If any other vaccine has been taken by the person, COVID-19 vaccine should be taken only after an interval of at least 14 days.
- **Interchangeability of COVID-19 Vaccines is not permitted:** Second dose should also be of the same COVID-19 vaccine which was administered as the first dose.
- **Contra indications for COVID-19 vaccination:** i.e. Following persons are not advised to take COVID-19 vaccination: -
 - a. Persons with history of**
 - Allergic reaction to a previous dose of COVID-19 vaccine.
 - Past history of severe allergic/anaphylactic reaction
 - b. Pregnancy & Lactation**
 - Pregnant and lactating women should not receive COVID-19 vaccine at this time.

Provisional / Temporary Contraindications

In these conditions, COVID

vaccination is to be deferred for 4-8 weeks after recovery:

- Persons with active COVID-19 infection.
- COVID Positive patients who have been given Plasma Therapy.
- Acutely unwell and hospitalized (with or without intensive care) patients due to any illness.

Following conditions are not contraindicated for COVID vaccine

- Persons with a past history of COVID-19 infection.
- History of chronic diseases and morbidities (cardiac, neurological, pulmonary, metabolic, renal, malignancies).
- Persons on immunosuppressive drugs or are immune compromised.

To Conclude

Today in India we are at an advantageous position, as the first wave is on decline and the sero surveys conducted in India revealed that 22-23% population in India is already exposed to COVID-19 infection. If we vaccinate 30 crore people in the 1st & 2nd phase of vaccination, over 50% of Indian population will have some sort of immunity & protection either by natural infection or by vaccination. In this way we will be very close to herd immunity. Herd immunity will prevent & check transmission of the virus and the COVID-19 disease will soon become benign and endemic in India. However as on now, broader objective of COVID-19 vaccination is to reduce the transmission of virus and reduction in mortality.

As in the initial phases when the pandemic was evolving, we all wanted to have vaccines as soon as possible, but now when the vaccines are available for emergency use based on scientific data, we say that, it was too fast & we have doubts about the vaccines. This need to be addressed promptly at all levels.

Although, all precautions are being taken to address Vaccine Hesitancy & Vaccine Anxiety by Govt. of India, through repeatedly engaging with the beneficiary group & trying to address all their doubts & confusions data is sound enough in favour of both the vaccines. We should not be guided by the forces which have no scientific database & we must have faith on the legitimate scientific data as the pandemic evolves.

We need to clarify all Myths regarding COVID-19 vaccines & put forward the scientific data based realities, which shall definitely take care of the vaccine hesitancy in masses.

COVID-19 vaccine is our weapon in the war against Covid-19. People are advised not to refuse for COVID-19 vaccination, if vaccine is assigned to them, as COVID-19 vaccine protects the beneficiaries & their families and

reduces the transmission of the virus. If vaccine is refused, then the person pre-disposes himself/herself for infection and becomes the medium for the spread of the virus as part of the chain for transmission.

Hence, it is our social responsibility to get administered the assigned vaccine, as we are still not sure about what shape this pandemic will take in near future, if we are not protected through COVID19 vaccine inoculation.

We need to be prepared with a long-term protection plan to protect our workforce from COVID-19 and this will help in ensuring our business continuity.

Normally people who had recovered from COVID 19 or who have received COVID-19 vaccine, have a tendency to think that they have gained immunity & won't be infected again. Still as per the available scientific data, it is not clear that how long this immunity will last which is very important & alarming. Especially these people need to continue caution, social distancing & appropriate mask use till the things are clear.

We need to practice the 7 Cs of our behavioural strategy i.e., Calmness, Confidence,

Communication, Collaboration, Community, Compassion and Care which are critical to contain the disease. In addition to vaccination, multiscale population approaches need to be enforced to control the pandemic including limiting/constraining the mobility patterns, social behaviour changes, community self-monitoring, reinforcing COVID appropriate behaviours & avoiding over-crowded & ill ventilated spaces.

More over based on the scientific data we have, it is very clear that vaccines are the only way to control & eradicate this infection.

To eradicate any infection we require 3 prerequisites i.e. a diagnostic test, a vaccine to control this infection & if there is no animal reservoir for the infection. Since COVID-19 infection satisfies all these three prerequisites, we can say with certainty that COVID-19 is eradicable, provided there are no major mutations in the existing virus strains.

COVID-19 Vaccines does not cause COVID-19, they prevent COVID-19 infection & prevent COVID-19 deaths. Hence it is the right time to take these vaccines to control the pandemic & later aim for eradicating the disease. ■



The Power & Promise of Meditation for Healthy Heart

(Integration of Science and Spirituality)



Dr. H.K. Chopra*

Meditation literally means “thinking process with present moment awareness” to have spiritual experience. Meditation is a process or technique of taking you from disturbed level of consciousness which is local and is a space and time event (waking, dreaming and sleeping state) to undisturbed level of consciousness, which is non-local and is spaceless and timeless, which is pure silence (Atma Darshan – Thuria, which ultimately leads to Cosmic Consciousness, Divine Consciousness or Unified Consciousness). It is this pure silence, which is the field of pure potentiality, infinite possibilities, infinite creativity, eternity, divinity, self-realization, fulfillment and salvation. It takes us from finite to infinite.

What is meditation?

Meditation is a technique to re-discover the quietness within us

and not forcing our mind to be quiet. It can unfold the vision of higher states of consciousness. Meditation is spiritual journey that takes our awareness from physical body to subtle body and then to soul and spirit.

By meditation, we can reach into the space (gap) between two thoughts, which is silence. Thought is a mental activity between one thought and second thought, there is a gap. By meditation, we can experience this gap (pure Silence), where real we, thinker of the thought or idea generator of our thought are located. That’s how, we call this as Aham Brahmasmi. (GOD means G- Generator, O- Operator and D-Destroyer). “I am that, you are that he is that, she is that, that is all there is.”

It allows to discover who we really are, why we have come to this universe, what is the purpose and how can we achieve divinity, eternity, happiness and bliss.

It helps us in restoring the memory of wholeness. Health and Meditation

As you know that optimum health by WHO is defined as a state of physical, mental, social and spiritual well-being and not just merely the absence of disease. From the mind body perspective or ayurvedic standpoint, health is an optimal integration of body, mind, spirit, soul and environment. Environment is our extended body. There is a nice vedic expression, which says “Yatha pinday, tatha brahmaanday!” “As is the atom, so is the universe, As is the microcosm, so is the macrocosm, As is the universal body, so is the cosmic body, As is the universal mind, so is the cosmic mind”. Meditation integrates all component of health. You and me are the expressions or the manifestations or the products of interaction between the microcosm, what we call as internal

* Sr. Consultant Cardiologist, Medanta Moolchand Heart Institute, New Delhi, President, World Wellness Foundation, WWF WHA, Country Head, American Heart Association.

environment, and the macrocosm, what we call as external environment. Thus, this whole universe or the cosmos is like a cosmic computer and we have sixty trillion cells in our body where six trillion chemical reactions are occurring every second in accordance with the laws of nature in harmony, we are not even aware of it. These cells act like the terminal of the cosmic computer, then who is the programmer? The programmer is our mind. Our mind is an expression of cosmic mind and our energy is an expression of cosmic energy. Our mental universe has impact on the physical universe. Every bit of the universe is in us and every bit of us is in universe. We are the holographic expression (hologram) of entire universe and the vice versa. Meditation is the most powerful tool today to integrate all the five components of health. Thus health is an expression of our own thoughts, our own perceptions, our own interpretations, our own experiences and our own choice-making. Thus we can be a perfect choice-maker by regular practice of meditation. "If you want to know what your thoughts were in the past, look at your body today and if you want to know what your body will be in the future, look at your thoughts today." We can have positive thoughts by regular meditation.

What are the types of Meditation?

Various types of meditation are known such as Transcendental Meditation, Raj Yoga Meditation, Japa Meditation, Primordial Sound Meditation, Mindfulness Meditation, Breathing Meditation, Gregorian Chanting, and Tibetan

Chanting, etc. Objectives of all these techniques are same but the methods are different.

What is the Primordial Sound Meditation?

Now I shall be discussing with you the technique of Primordial Sound Meditation. It is a part of Yogic Tradition of India. Yoga derived its name from the word Yoke, means union that is the union of body, mind, soul, spirit and environment. This union is possible by yoga sutra by meditation as described by the sage Patanjali many years ago. (Sutra derived its word from Suture or ligature). This Sutras described by Patanjali at that time were, "Now the teaching of Yoga begins." "Yoga is progressive settling down of the mind, into the field of pure silence." "When the mind is silent, we are in our essential state, which is pure unbounded consciousness." "Our essential state is overshadowed by the activity of the mind."

Our expression or existence has three levels – The physical body, the subtle body and the causal body. The physical body, by quantum physics is space and time event. My physical body is standing before you at this point of time and your physical bodies are sitting before me at this point of time. The physical body is born, lives and dies. The shelflife of our physical body today is 80 – 90 years. The physical body has two components – 1.) The material component, which is made up of food. "We are what we eat." "If we eat the right food, at right time, at right place, in a right manner, in a right dose, in a right environment, then we will have the right material component of our physical body." The physical

body comprises of bones, tissues, organs, skin, hair, etc. The second component of physical body is energy component, what we call as "Prana" in our scriptures; we call this in English as "vital force" or "Anti-entropy Force". This is also called as "Chee" in China, "Kee" in Japan, "Ruh" in Islam and "Ruha" in Arabic. Everyone is talking of same thing. Some of us are very energetic and some of us are lethargic. If we derive adequate energy from our sensory inputs such as vision, hearing, touch, smell and taste, then we will be energetic. If we visualize nice sceneries, flowers, plants, trees, fruits and vegetables, forests, stars, moon, sky, etc. they all will energize us. The seven colours of the rainbow spectrum, especially from fruits, vegetables and flowers, through their phytochemicals may energise us. But, if we watch horror movies or watch violent scenes, it may de-energize us.

The term "primordial sound meditation" was first coined by Dr. David Simon. If we listen to Primordial Sound, which are basic vibrations of the nature and are soothing to our nervous system, they may energize us. The Primordial Sounds are produced by the rustling of the leaves or waves of the ocean or a waterfall or chirping non verbal sound produced by the birds or the giggling laughter of the baby are all primordial sounds. The instruments used by Lord Krishna as flute, by Lord Shiva as dumroo and by Sarasvati as veena and by Lord Ganesh as conch (shankh), were used to produce primordial sounds.

There is a very nice Vedic expression. It says, "The essence of life is earth, and the essence of earth

is water, The essence of water is plant and the essence of plant is human being, The essence of human being is speech, the essence of speech is thought, The essence of thought is sound and the essence of sound is primordial sound."

Sound Energy

You and me originate by the primordial sound, when a ovum fertilizes with a sperm, it produces sound, which we can't perceive it because of limited hearing capability. Therefore, we use ultrasound. Everything in you and me is a sound energy. Sound is within and sound is outside us, I use a stethoscope to listen to heart sounds, lung sounds and intestinal sounds. The only thing, which we have to do is to maintain the rhythm of the sounds in this universe. Any disturbance in the rhythm of the sound signifies a disease. Gandharva music is very soothing for our nervous system.

It has been documented that cow's milk more when they are subjected to regular music and the babies born to mothers who were subjected to music therapy when they were pregnant have more intelligence. It has also been documented that patients in coma, when subjected to music therapy has improved their arousal time. It has also been documented that the plants grow and the flowers blossom to their full potential when subjected to music. However, noise, if becomes pollution, then it is detrimental as it has been documented in one of the studies where school children subjected to noise pollution on the main road side had higher incidence of high blood pressure and early deafness.



Touch Energy

Touch is also very important part of healing energy such as shaking hands, kissing, hugging, embracing, petting, and massage therapy including acupuncture are known to increase healing substances such as VIP and endorphines responsible for feeling of well-being but if we pinch or slap somebody, that is a negative touch influence and liberates jittery molecules. Self-massage with oil (Abhyanga) is excellent for health.

Smell Energy

Fragrance, smell or aroma also energize us. Smell of spirit may cause nausea in someone and the smell of incense in the same individual may have a healing influence.

Taste Energy

Gustatory or taste sensations are also important to energize us. All six tastes including sweet, sour, salty, bitter, pungent and astringent should be consumed in moderation depending on dominance of our dosha - vatta, pitta or kapha, etc.

The subtle body comprises of

mind, intellect and ego. Mind comprises of thought, desires and emotions, the intellect comprises of ideas, concept and power of discrimination, etc. The nature of mind is restless, wandering, agitated, wavering, with lots of desire and emotions. If we act only at mind level, then we will be emotional or impulsive and if we act at the intellect level, then we are more discriminative and less emotional. The relationship OF INTELLECT AND MIND INSTRUMENT IS VERY IMPORTANT. If the intellect guides mind, then success and happiness can be achieved. Action at mind level is just like a car being driven by a drunken driver, while the action at intellect level is just like a car being driven by a sober and experienced driver. Ego is the self-image. Ego is of two types with self referral or object referral. Ego with object referral is detrimental while ego with self referral is soothing for us. The subtle body is also a space and time event but their shelf life is longer than the physical body.

Now we talk of causal body. The causal body is soul and spirit. The soul is the individual manifestation of the spirit. The spirit is

pure consciousness. The soul and spirit are spaceless, timeless and dimensionless. This is the field of pure silence. The silence is in the spaces between the thoughts. A thought is a mental activity and then we have another thought, which is another mental activity. So, between one and second thought, we have the thinker of the thought (space or gap), which is silent. It is the field of infinite possibilities and pure potentialities. The software of the soul is action (karma), memory (sanskar) and desire (vasna).

Action creates memory and memory creates desire and desire create action again. This is how one individual is different from another, depending on what experience I had, what celebrations I had, what tragedies I had, etc. Spirit is like vast ocean, it is a vast stillness while the soul is like a wave in an ocean. Meditation takes our awareness back and forth through these levels allowing us to experience these levels. The analogy - Meditation is like diving, when a swimmer dives in the swimming pool from a height and goes to a deeper level of the swimming pool where there is pure silence and then bounces up and brings this with him. In the same way, in PSM, we dive down into the deeper levels of consciousness and bring this silence with us. It is the experience of timelessness and the time-bound experience. By practicing this back and forth, it may give us an experience of bliss and happiness. In PSM, we use, "Mantra". "Man" means mind. "Tra" means instrument of the mind. This mantra is called as "Bija Mantra" (seed mantra). The mantras used in PSM are meaningless and are basic vibrations of the nature

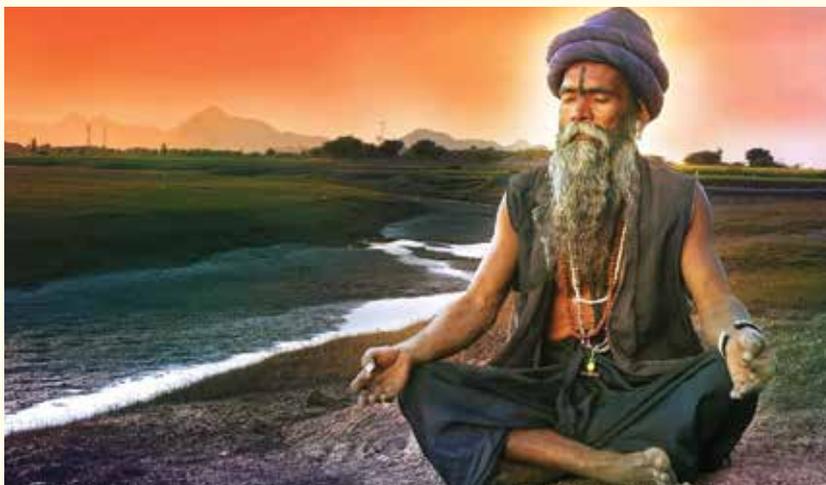
Our expression or existence has three levels - The physical body, the subtle body and the causal body. The physical body, by quantum physics is space and time event. My physical body is standing before you at this point of time and your physical bodies are sitting before me at this point of time. The physical body is born, lives and dies. The shelflife of our physical body today is 80 - 90 years. The physical body has two components - 1.) The material component, which is made up of food. "We are what we eat." "If we eat the right food, at right time, at right place, in a right manner, in a right dose, in a right environment, then we will have the right material component of our physical body."

and are soothing to the nervous system. The mantras used in PSM are derived by Vedic mathematical calculation depending on the date of birth, place of birth and time of birth. This sound is used when we become manifest from unmanifest. This sound is incorporated into the mantra. The first and the third component of the sound are the same for all the individuals but the middle component is individual-specific. Example,, "Aum Shiva

Namah" - "Shiva" is individual-specific. The word "Aum" is a universal divine sound (it is the triumverate divinity representing the combination of Gayatri, Savitri and Sarasvati) and represents all the three levels of consciousness - waking, breathing and sleeping, sattvik, rajasik and tamasik. It also signifies generator, operator and destroyer. It has five components: A, U, M, Dot and sound, it is the representative of all Gods. According to Mandukya Upanishad, this sound includes past, present and future. According to Chandogya Upanishad, it represents the origin of all the three Vedas. It is the first sound, which came from the creator's mouth and it also represents Brahma, Vishnu and Mahesh.

"Namah" means the state of love, compassion, humility, peace and harmony. When you are in that stage of consciousness in you and I am in that state of consciousness in me, We are ONE. That is what "Namaste" means. It is not only the symbol of Air-India.

There are total 108 mantras. By recapitulating this mantra back and forth from physical body, to causal body effortlessly and gently, we may have three types of experiences. 1.) We may go to sleep. That means our body's physiology needs rest. 2.) We may have a number of thoughts, restlessness or boredom. Our mantra may change in rhythm, speed or volume or become distorted. Please bring it back gently to your awareness. 3.) You may slip into the gap, which is a stage of thoughtlessness and mantralessness. This is the state of pure silence, which is the field of pure potentiality and infinite possibility.



What is the Technique of Meditation?

We should sit comfortably with the back straight, switch off the telephone, close the door and there should be no pets around, close the eyes and sit comfortably, recapitulate the mantra for approx 30 mins and then gradually and slowly open the eyes. This will give you experience of restful alertness. Make sure that you meditate for thirty minutes before breakfast and before dinner and not after meals. Do not use meditation as a sleeping pill.

The Transcendental Meditation as described by Maharishi Mahesh Yogi is the method of relaxation and restful alertness known to mankind. It is mantra meditation. It has been documented that by regular practice of mediation 20 min in morning and evening one can reduce adrenaline, noradrenaline cortisol levels in the blood which in turn significantly reduce heart rate, blood pressure and metabolism and produce coherence in the brain waves. Similarly Raj Yoga Meditation is the meditation technique with eyes open and concentration on a point. Similarly Japa mediation, Sahaj

Yoga mediation in mindfulness mediation (breathing awareness mediation). There are so many technique and methods but the goal is only one, that is to experience silence within us.

Most of us have limited experiences of only three levels of consciousness: 1.) Waking – It is an illusion and is created by the mind and is not the reality. 2.) Dreaming – Is fabrication of our mind and has no real existence with poor awareness. 3) Sleep – It is a dull state of consciousness with very little awareness. These are all space and time events and are local. 4) Atma Darshan or Thuria – It is the direct experience of the soul and the spirit. When we experience pure silence, thinker of the thought, pure potentiality, eternity, which is reality. 5.) Cosmic Consciousness – Here we experience both local and non local spirit together in everyone else's lives. This is known as state of witnessing and is usually experienced when we have a direct experience of the soul repeatedly. 6.) Divine consciousness – When we experience non local field of spirit and also in everything else in creation, we experience our inhabited in

celestial world surrounded by divinity. 7) Unified Consciousness – When we experience non local field of spirit in the whole universe. This is what we call as "Vasudev Kutumbkam". "In cosmic consciousness, we experience miracles. In divine consciousness, we create miracles. In unified consciousness, everything is miraculous."

The Bioneurohormonal Mechanism of Benefits of Meditation

Consciousness is connected through autonomic nervous system including sympathetic and parasympathetic system to physical and subtle body which is chemically mediated. By having quite attitude of mind from the level of consciousness the parasympathetic activity is activated thereby liberating more of happy molecules such as serotonin, acetylcholine, dopamine, oxytocin, and endorphins and reduce sympathetic activity by decreasing jittery molecules such as epinephrine, non epinephrine and steroids. Increased parasympathetic mode decrease heart rate, blood pressure, decreased tendency for clotting, decreased ulceration and plaque rapture and maintain the endothelial integrity and vascular health. It also reduces oxidation of cholesterol. All these chemical neurological mechanism of parasympathetic mode help in creating healthy heart.

There is a nice Vedic expression. It says, "I am not my atoms, they come and go, I am not my thought, they come and go, I am not my mind, it comes and go, I am not my ego, my self image changes, I am just a witness or an interpreter of the self beyond the self image, which is ageless and timeless." Jallaudin Rumi

– a famous Sufi poet once said, “You and me are unconditional spirits trapped into conditions, You and me are boundless spirits trapped into the boundaries, You and me are limitless spirit and are trapped into the limits, You and me are non local and trapped into the localness.” Pure potentiality is Consciousness, Consciousness is primary, matter is epiphenomenon of consciousness. Consciousness conceives, constructs and become matter. It is the womb of creation, creating universe, galaxy of stars, moon, sun, forest, water, animal kingdom, vegetable kingdom and human kingdom.

It is the thin ker of God. According to the old paradigm, pure potentiality is reality. The three components of reality can be expressed as a.) soul, mind and body b.) experiencer, process of experience and experienced. The experiencer is non-changing, while the experience and the process of experience changes. For example, I am interacting with you at the moment and after this, I will go to the hospital to some of my patients where I will be as a doctor and then I will go home where I will be as a husband and then I have to call my son tomorrow, where I will be as a father. I am a role player differently at different times.

The role changes but the role player remains the same. c) Observer, process of observation and observed. d.) Knower, process of knowing and known e) Seer, process of seeing and scenery f.) Dreamer, process of dreaming and dream. g) Interpreter, process of interpreting and interpretation. By meditation, we experience oneness, the examples spiritual masters such as Lord

**By meditation,
“We learn that we are
not human beings with
occasional spiritual
experiences, but we
are spiritual beings
with occasional human
experiences.” “Tranquility
is truth, truth is beauty,
beauty is bliss, bliss is
divine, divinity is miracle
and miracle is experience
of optimum health”. This is
possible with Meditation.
We can shape our destiny
by Meditation. “Love
everyone and serve
everyone!”**

Krishna, Lord Shiva, Lord Rama, Veda Vyasa, Kapila, Chanakya, Patanjali, Shankaracharya, Ramana Maharishi, Sant Kabir, Mirabai, Dhanna Bhagat, Lord Jesus Christ, Prophet Mohammed, Guru Nanak Devji, Arjan Devji, Mahavir, Gautam Buddha, Mahatma Gandhi, Mother Teresa, Rabindranath Tagore, Swami Vivekananda, Rajneesh, Swami Chinmayananda, Swami Rama, Maharishi Mahesh Yogi, and many more achieved eternity and divinity in oneness with consciousness. Similarly, great philosophers and scientists such as Pythagoras, Newton, Albert Einstein, Dr. Annie Besant, George Bernard Shaw, Leo Tolstoy, Socrates, Aristotle, Archimedes, Dr. APJ Abdul

Kalam worked with deeper levels of consciousness of oneness. Archimedes discovered that the water displaced by a body is equal to the weight of the body and this happened when he was taking a bath in a tub and he ran on the streets in the same status, shouting “Eureka! Eureka! (I found it! I found it!)” Lord Krishna in the Gita said Love is life and life is love – love is pure potentiality.

There is an invisible, immortal dweller in you and me, the nature of which is sat, chit and anand. Sat is eternal truth, chit is unity consciousness without fear, which upholds the whole universe and anand is the ultimate bliss. We can experience this by practice of experience. Lust, anger, greed, ego and attachment are five gates to hell. We have to be away from this. The nature of pure potentiality is pure silence, which we experience by meditation is such that life cannot leave it, water cannot wet it, fire cannot burn it and air cannot dry it. It is omnipotent and omnipresent.

Lord Krishna also said, “Be in action and not inactive and be in action even in the act of renunciation.” According to the new paradigm, pure potentiality is non local, spaceless, timeless and dimensionless. According to quantum physics, pure potentiality is a quantum soup, which is reality. Reality is radically ambiguous, ceaselessly flowing quantum soup. Quantum soup is a junction, where matter and energy melt into something that is neither matter nor energy. In modern physics, we call this as unified field. Reality depends on our perceptions. Honeybee can reverse her age by dispersion of hormones. Female anopheles can haunt human blood from a

long distance. Two chameleons eyes whole world is in different axis. one whale in an ocean by her preverbal sound can communicate and give message to another whale, who is miles away. Our DNA is the best example of pure potentiality. Our body is a package of organs and organs are packages of tissues and tissues are packages of cells, our cells are packages of molecules, and our molecules are packages of sub molecules and sub molecules are packages of atom and atoms are packages of Carbon, hydrogen and nitrogen.

These atoms are packages of sub atomic particles – quartz and bozone, which are fluctuations of energy and information in huge void. Ninety nine point nine nine percent of you and me are empty spaces and point zero one of that, which appears to material, is also empty space. Flower is the best example of pure potentiality. It is a packet of information and energy. Energies are electromagnetic, gravitational and atomic forces, which allow the flower to be perceived by our senses. Size, shape, colour, texture and smell are packages of information to our consciousness. Dr. Candace Pert – author of emotional molecules said, that DNA is non-changing aspect of quantum field and the neuro transmitters are fluctuations in the same field.

Meditation is such a technique which takes us to the experience of pure silence which is the filed of pure potentiality and infinite possibilities. It teaches us -

*“Relax and not to be lethargic,
To be fearless and not to be fearful,
To manage stress and not to avoid it,
To live more fully and not to withdraw from the world.”*

By meditation, “We learn that we are not human beings with occasional spiritual experiences, but we are spiritual beings with occasional human experiences.” “Tranquility is truth, truth is beauty, beauty is bliss, bliss is divine, divinity is miracle and miracle is experience of optimum health”. This is possible with Meditation. We can shape our destiny by Meditation. “Love everyone and serve everyone!”

50 Perfect Health Benefits of Meditation

- To have healthy heart.
- To have normal blood pressure.
- To have normal cholesterol.
- To prevent stroke / paralysis.
- To have perfect digestion.
- To have perfect weight.
- To have perfect sleep.
- To become perfect choice maker.
- To reverse and regress ageing.
- To remain young.
- To prevent cancer.
- To become embodiment of positive emotions.
- To get rid of negative emotions.
- Get rid of Poisons such as tobacco, alcohol and negative thoughts.
- To experience silence.
- To have positive perceptions.
- To have positive experience.
- To have positive interpretations.
- To have positive choices.
- To have spontaneous right action.
- To improve stress coping capability.
- To connect to soul.
- To connect to spirit.
- To unfold higher levels of consciousness.
- To experience silence.
- To experience pure potentiality.
- To experience divinity and eternity.
- To experience bliss and happiness.
- To experience love and compassion.
- To love everyone and hate no one.
- To experience field of infinite possibilities.
- To experience miracles.
- To become non judgmental.
- To learn not to criticize and not affected by criticism.
- To experience egolessness.
- To improve productivity.
- To increase willpower.
- To become intuitive.
- To become confident and bold.
- To become dynamic.
- To become energetic.
- To become creative.
- To have perfect relationship.
- To improve decision taking skills.
- To get rid of anger, jealousy and hatred.
- To restore memory of wholeness.
- To achieve success, everywhere in everything.
- To experience detachment.
- To learn to give.
- To create world peace. ■

New and Improved Convention Centre at SCOPE Complex and SCOPE Minar

Conference Halls and facilities are being sanitized and fumigated on a regular basis.
Booking of halls are now open in line with Government guidelines.

Conference Facilities at SCOPE Convention Centre Lodhi Road, New Delhi

The centrally air-conditioned SCOPE Convention Centre at SCOPE Complex, Lodhi Road, New Delhi provides excellent conference facilities to PSEs, Govt. Departments, Autonomous Bodies, Institutions/NGOs etc. The Auditorium and other Conference Halls are equipped with projector and screen facilities, sound & light control room with recording & P.A. facility, etc. Details of the capacity of the Auditorium and other Halls, which are available on nominal tariff are given below:

Auditorium



The Auditorium having capacity of 310 persons (300 Chairs + 10 Nos. Chairs at stage) capacity equipped with projector, screen and mikes on dais and podium on stage.

Mirza Ghalib Chamber



The chamber having capacity of 108 persons (102 Nos. Chairs + 6 Nos. Chairs on Dais) equipped with 2 Nos. projector & screen and mikes on table, dais and podium.

Tagore Chamber



The chamber having capacity of 92 persons (86 Nos. Chairs + 6 Nos. Chairs on Dais) equipped with 2Nos. projector & screen and mikes on dais, tables & podium.

Bhabha Chamber (Board Room)



The chamber having capacity of 44 persons (24 Nos. Chairs on round table and 20 Nos. Chairs on sides) equipped with projector, screen and mikes on dais, tables & podium.

Fazal Chamber



The chamber having capacity of 25 persons (15 Nos. Chairs on round table and 10 Nos. Chairs on sides) capacity with board room type sitting arrangement equipped with projector, screen and mikes.

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The Business Centre having capacity of 7 persons equipped with multi point Video Conferencing System (1+3), at three locations at a time for National & International both.

Annexe II



The Annexe-II has capacity of 15 Persons and is equipped with projector and screen.

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The banquet hall having capacity of 500 Persons for the purpose of lunch & dinner. Sitting arrangement could be done for 40 persons.

Tansen Chamber at UB



The Tansen Chamber has capacity of 30 persons and also has stage & podium equipped with projector and screen.

Annexe I



The Annexe-I has capacity of 20 Persons and is equipped with projector and screen.

Amir Khusro Chamber at UB



The Amir Khusro Chamber has capacity of 35 persons with facility of stage & podium equipped with projector and screen.

For Booking & Tariff details please contact

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Conference Facilities at SCOPE Minar Convention Centre, Laxmi Nagar, New Delhi

SCOPE Minar, an architecturally conceived in the form of two high rise curvilinear tower blocks sitting on a four storey circular Podium Block, is strategically located in Laxmi Nagar District Centre, Delhi -110092 and housing around 40 PSEs of repute. It is one of the iconic buildings of East Delhi. It has a huge foyer which gives an ambience look inside the building. There is a green environment all around the SCOPE Minar building with large size planters. The building also has state-of-the-art Convention Centre comprising of five conference halls i.e.

Auditorium



The auditorium has capacity of 350 delegates. Various seminars, training programmes, presentations, get together etc. can be conducted in auditorium which is equipped with projector and screen. It provides ambient and peaceful environment for the programmes.

VIP Lounge



VIP Lounge has sitting capacity of 30 delegates. The executives and higher level officers, Directors, CMDs can use it as waiting lounge also.

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Board room having "U" shaped table, has a sitting capacity of 50 delegates with modern facilities - projector, screen, sound system, table mic etc.

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SCOPE Academy of Public Sector Enterprises (APSE) conducts induction level programmes for PSEs' executives. It has three training halls equipped with projector, screen, sound system etc. one with capacity of 40 persons and two halls with capacity of 30 persons each for training purpose.

Meeting Hall



Meeting hall having "U" shaped table, has a sitting capacity of 62 delegates. Most widely used for small size meetings and training programmes, group discussion, power point presentations etc. and is equipped with projector and screen.

For Booking & Tariff details for Convention Center, SCOPE Minar, Laxmi Nagar please contact

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There is a wide space for vehicle parking that cater for a capacity of 550 cars, including the newly built good quality Banquet Hall wherein 300 delegates can comfortably dine at a time, makes it special to deliver an all-round conducive meeting environment.



SCOPE FORUM OF CONCILIATION AND ARBITRATION (SFCA)

With a view to expedite settlement of disputes and reduce avoidable expenditure by PSEs, a need was felt by Standing Conference of Public Enterprises (SCOPE), an Apex Body of Public Sector Enterprises, to institutionalize the prevailing system of arbitration which led to formation of SFCA in 2003. The forum was formally inaugurated by Shri Santosh Gangwar, the then Hon'ble Minister of State for Heavy Industries & Public Enterprises and Parliamentary Affairs at SCOPE Complex on 9th January 2004.

WHY SFCA?

Empanelment of more than 400 Arbitrators/Conciliators

- Retired Judges of Supreme Court, High Courts,
- Retd. Secretaries, Joint Secretaries of Government of India
- Chief Executives, Directors and senior officials of PSEs
- Professionals including Advocates, Chartered Accountants.

Complete services for conducting Arbitration

- A dedicated Forum administering, overseeing and conducting arbitration and conciliation proceedings.

Cost effective and timely dispute settlement

- Settling disputes between PSEs and their associates within shortest possible time at more economical and cheaper cost in comparison to other institutions.

Dedicated Infrastructure

- Exclusive Arbitration Hall having sitting capacity of 15 persons.
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For any queries relating to SFCA, you may contact

SCOPE FORUM OF CONCILIATION & ARBITRATION (SFCA)

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Hon'ble Prime Minister Shri Narendra Modi

dedicates 50 MW Kasaragod Solar Power Project implemented by THDC India Limited to the Nation



Hon'ble Prime Minister, Shri Narendra Modi dedicating the 50 MW Kasaragod Solar Power Project to the Nation through video conferencing.

Hon'ble Prime Minister, Mr. Narendra Modi dedicated 50 MW Kasaragod Solar Power Project to the Nation through Video Conferencing the first Solar Power Project implemented by THDC India Limited (THDCIL). Hon'ble Governor of Kerala, Mr. Arif Mohammad Khan; Hon'ble Chief Minister of Kerala, Mr. Pinarayi Vijayan; Hon'ble Minister of State (I/C) (Power and New Renewable Energy) & Minister of State (Skilled Development & Entrepreneurship), Govt. of India, Mr. R. K. Singh; Hon'ble Union Minister for Housing & Urban Affairs(I/C), Civil

Aviation (I/C), Govt. of India, Mr. Hardeep Singh Puri; Hon'ble Minister for Electricity, Govt. of Kerala; Mr. M. M. Mani, Hon'ble, MP (Lok Sabha) Mr. Sashi Tharoor and Mr. Alok Kumar, Secretary (Power), GoI attended the ceremony joining through video conference. Hon'ble, MLA, Manjeshwaram, Mr. M. C. Kamaruddin attended the ceremony from the project cite.

Mr. D. V. Singh, CMD THDCIL, Mr. J. Behera, Director (Finance), THDCIL, Mr. R. K. Vishnoi Director (Technical), THDCIL Mr. Augustin Thomas, CEO, RPCKL, and other dignitaries

attended the dedication ceremony from the project location at Kasaragod, Kerala. It is to mention that while most of the infrastructure projects world over got severely impacted by COVID-19 pandemic, this project was commissioning on 31.12.2020 one month before the schedule, despite all hurdles. With the development of its first 50 MW Solar Photo Voltaic PV power project in Kasaragod Solar Park, THDC is committed to contribute to the government's solar power agenda Kerala which has a total capacity of 105 MW.



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PSEs CSR Activities

NLCIL presents 15 Motor Cycles and gadgets to District Police Department, Cuddalore



Mr. Rakesh Kumar, CMD, Mr. R. Vikraman, Director (HR) NLCIL, Mr. Sree Abhinav, I.P.S., Superintendent of Police, Cuddalore District, Mr. S. Gangadharan, DSP, Neyveli joined in handing over the Keys of Patrolling Bikes and communication gadgets to the police personnel.

With a view to ensure better security and safety of the people of Neyveli and surrounding areas, NLCIL management extended support to Cuddalore District Police Department by presenting two wheelers with various gadgets in a function organized at Neyveli.

15 new Motorcycles and 30 Body worn cameras, wireless communication equipment, Special Helmets and Reflective Jackets and patrolling kits for the two wheelers worth Rs. 45 lakhs were handed over to the Cuddalore District police personnel.

NLCIL has also developed a mobile app inhouse viz., "Connect App" for use by all the police personnel of Cuddalore District to improve communication with the Headquarters directly through the App from their mobile phone. Usage of the App will considerably save the time of Police personnel in reaching to their HQ, which otherwise used to be done physically. This "Connect App" will also help redressal of grievances of the entire District Police personnel with direct contact with the Superintendent of Police, which is also linked to the E-office.

Mr. Rakesh Kumar, CMD, NLCIL inaugurated the 'Connect App' and handed over the keys and communication gadgets to the Police personnel and flagged off the Motor Cycles in the presence of Mr. R. Vikraman, Director (HR), Mr. Sree Abhinav, I.P.S, Superintendent of Police, Cuddalore District and other senior officials of NLCIL and Police Department.

CMD also stated that all the above initiatives will strengthen the surveillance system and will be for mutual benefit.

NHPC Ladies Welfare Association distributes dry ration



Mrs. Sudha Singh, President, NHPC Ladies Welfare Association alongwith other members of the Association distributing dry ration at Santosh Nagar, Faridabad.

NHPC Ladies Welfare Association of NHPC, while fulfilling its responsibility towards the society affected with COVID-19 pandemic, distributed dry ration among needy people at Government Primary School, Santosh Nagar recently in the vicinity of NHPC Office Complex, Faridabad in the presence of Pradhan Lala Varinder Singh.

This welfare activity was started-off by Mrs. Sudha Singh, President of NHPC Women's Welfare Association. Other members of the association were present during the activity included Ms. Gayatri Goyal, Ms. Seema Sharma, Ms. Pinki Puri, Ms. Shalini Agrawal, Ms. Ruchi Nautiyal, Ms. Neema Harshin, Ms. Charu Gupta and Ms. Neelu Agarwal.



ALL GREAT ACHIEVEMENTS ARE A SERIES OF SMALL EFFORTS.

LET'S KEEP ODISHA CLEAN

Mahanadi Coalfields Limited (MCL), a Government of India Enterprise under Ministry of Coal, operates 15 open cast and 5 underground coal mines in Angul, Jharsuguda and Sundergarh districts of Odisha. The company contributes to 25 percent of total production by Coal India. Ever since its inception, MCL has been a front-runner in introducing innovative ideas and technology to minimise the impact of coal mining on environment. Extending Swachhta Abhiyan to waste management level with new technology and best practices, the company has achieved huge advancements in cutting down and safe disposal of solid waste in its mines. Committed to inclusive growth, MCL is the top spender under CSR in Odisha.



Ujwal Bharat Ka Hai Sapna, Swachh Koylanchal Ho Apna

Mahanadi Coalfields Limited

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PFC receives Certificate of Appreciation for “Best CSR practices & COVID-19 Relief Work” from Government of Haryana



Mr. P. K. Singh, Director (Commercial), PFC receiving the Certificate of Appreciation on behalf of the Company from Mr. Kanwar Pal, Hon'ble Education Minister of Haryana.

Power Finance Corporation Ltd (PFC) has been recognized by the Government of Haryana for exemplary work done under its Corporate Social Responsibility Practices (CSR) and the relief work undertaken during the COVID-19 pandemic. The Hon'ble Education Minister of Haryana, Mr. Kanwar Pal bestowed a Certificate of Appreciation to PFC during an event held on the Republic Day at Tau Devi Lal Stadium near Rajiv Chowk in Gurugram.

PFC has been significantly contributing through CSR for the development of various segments and communities in the State of Haryana which includes empowering the unemployed youth through job-oriented skill training programs.

MCL's CSR Touch Transforms School



A completely-renovated Government Primary School at Mirdhapada in the outskirts of Sambalpur is waiting for students to resume regular classes, which were suspended due to COVID-19 pandemic. School located in Burla NAC is no more in dilapidated condition as Mahanadi Coalfields Limited (MCL) has transformed it with new classrooms and a kitchen for mid day meal in the new building.

MCL has spent Rs. 23 lakh under its CSR initiative to transform the Government Primary School, Mirdhapada, as model school. ■

BHEL commissions **800 MW Supercritical Thermal Power Plant** in Madhya Pradesh

Bharat Heavy Electricals Limited (BHEL) has successfully commissioned the second unit (800 MW) of the 2x800 MW Gadarwara Super Thermal Power Project Stage-I. Located at Gadarwara in Narsinghpur

district of Madhya Pradesh, the greenfield project is being developed by NTPC Ltd. The first unit of this project was commissioned by BHEL in 2019 and is presently under commercial operation. So far, BHEL has commissioned 24

sets of supercritical boilers and 20 sets of supercritical turbine generators of 660/700/800 MW rating, out of which 08 sets of supercritical boilers and 06 sets of supercritical turbine generators have been commissioned for NTPC Ltd.





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SAIL Registers Rs. 3645 crore Profit Before Tax During

Q3 FY21 Marking a Substantial Growth Over CPLY

Steel Authority of India Limited (SAIL) has declared its financial performance results for the third quarter of current financial year (Q3 FY21) and nine months (9M FY21), both ending 31st December, 2020.

Key highlights of Q3 FY21

- Hot metal production at 4.8 MT, growth of 12% over CPLY
- Crude steel production at 4.37 MT, growth of 9% over CPLY
- Saleable steel production at 4.15 MT, growth of 6% over CPLY
- Total sales (domestic + exports) of 4.15 MT, growth of around 1% over CPLY

* MT is Million Tonnes

There has been a country-wide turnaround in the overall

Financial Performance in FY-21

	Q3: FY21	Q3: FY20	% GROWTH	9M: FY 21	9M: FY 20	% GROWTH
Turnover	19614	16405	19.6%	45286	45001	0.6%
EBITDA	5294	1186	346.4%	7267	4267	70.3%
Profit Before Tax (PBT)	3645	(591)	716.3%	2271	1011	124.7%
Profit After Tax (PAT)	1283	(430)	398.7%	406	(704)	157.7%

• All in Rs. crore

economic activities after the short pause set in during the pandemic. In sectors like infrastructure, construction, manufacturing and automobiles, there has been a relatively rapid recovery. As these sectors are major steel consumers, the recovery in them

have helped the up-rise in demand in domestic steel sector. The concerted thrust of the government to strengthen the infrastructure of the country has helped the domestic steel sector witness healthy demand generation.

Ms. Soma Mondal, Chairman, SAIL, commented, "The worst is behind us. SAIL has shown overall improvement during the current financial year despite all the challenges. With the focus on seizing opportunities, the company has geared up to service the rising steel demand in the market as soon as the gradual opening of lockdown started. It has always been SAIL's strategy to operate in sync with the market situation. As we look ahead, we are confident of improving the performance further in the remaining period of the financial year."



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PFC's Q3'21/9M'21 Results

Standalone

- Records all-time high Quarterly PAT of Rs. 2,333 crore.
- 39% jump in Standalone Profit After Tax from Q3'20. PAT at Rs. 2,333 crore for Q3'21. vs Rs.1,680 crore in Q3 '20.
- 45% jump in Standalone Profit After Tax from 9M'20 - PAT at Rs. 6,117 crore for 9M'21. vs Rs. 4,220 crore in 9M '20.
- 30% increase in Net Interest Income from Q3'20 -Net Interest Income at Rs. 3,442 crore for Q3'21 vs. Rs. 2,646 crore in Q3'20.
- 34% increase in Net Interest Income from 9M'20 - Net Interest Income at Rs. 9,879 crore for 9M'21 vs. Rs. 7,362 crore in 9M'20.
- Owing to resolution of stressed assets
 - Gross NPA ratio saw a sharp reduction of 249 bps from 9M'20. The current GNPA ratio is at 5.85% against 8.34% in 9M'20.
 - Net NPA ratio also saw a sharp reduction of 164 bps from 9M'20. The current Net NPA ratio is at 2.30% against 3.94% in 9M'20.
- Even in a challenging operating environment, key financial indicators maintained within a stable range for 3 consecutive quarters. Q3'21 Yield is at 10.68% and Cost of Funds is at 7.48%. Driven by efficiencies in yield and cost of funds, the Net Interest Margin on earning assets for Q3'21 at 3.63% has improved by 35 bps from 3.28% in Q3'20.
- Comfortable capital adequacy levels at 20.21% having sufficient cushion over and above the prescribed regulatory limits.
- This quarter has all been about delivering on the past promises and despite a tough operating environment, PFC has been successful in holding its promises and delivering a robust performance.

Consolidated

Q3'21 Vs Q3'20

- 17% increase in consolidated Profit After Tax from Q3'20 - PAT at Rs. 3,963 crore for Q3'21 vs. Rs. 3,387 crore for Q3'20.
- 16% increase in Consolidated Revenue from Operations-Consolidated Revenues at Rs. 18,435 crore for Q3'21. vs. Rs. 15,873 crore for Q3'20.
- Reduction in consolidated net NPA ratio from 3.56% in Q3'20 to 2.12% in Q3'21 due to resolution of stressed assets.
- Reduction in consolidated Gross NPA ratio from 7.41% in Q3'20 to 5.48% in Q3'21 due to resolution of stressed assets.

Liquidity support to Discoms under Aatmanirbhar Bharat Abhiyaan

- Under the Aatmanirbhar Discoms liquidity support announced by the GoI, PFC and its subsidiary REC combined together, have so far sanctioned Rs. 1,35,497 crore and disbursed Rs. 46,074 crore.

Management Comments

- Mr. R. S. Dhillon, CMD Remarks - PFC's CMD commented that I am happy to see that PFC has so far navigated the pandemic well with a high level of resilience. This quarter results are testament to this. With Indian economy getting back on track of recovery, I feel positively about the recovery in Indian power sector. I believe that PFC is in a strong financial position to leverage on attractive growth opportunities.
- Ms. Parminder Chopra, Director (Finance) Remarks - PFC's Director (Finance) commented that the 3rd quarter has been remarkable for PFC with quarterly profit reaching an all-time high. Our overall Q3 results reflects the strong operational strength and solid fundamentals of PFC in a continuing challenging environment.



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**Enhanced
Energy Efficiency**



**Improving
Indoor-Air Quality**



**Reduction in
Carbon Emissions**

PSEs Ink MoU

Oil India Limited signs MoU with Rajiv Gandhi Institute of Petroleum Technology



Mr. S. C. Mishra, CMD, OIL & Prof. A. S. K. Sinha, Director, RGIPT exchanging MoU in the presence of Senior Officials of OIL and RGIPT.

Oil India Limited (OIL), signed Memorandum of Understanding (MoU) with Rajiv Gandhi Institute of Petroleum Technology (RGIPT), Jais, Amethi in a MoU signing ceremony held at its Corporate Office in Noida.

The MoU aimed at promoting Industry-Academia partnership between OIL and RGIPT was signed by Mr. S.C Mishra, CMD, OIL and Prof. A.S.K Sinha, Director, RGIPT.

The MoU was signed in the presence of Mr. Biswajit Roy, Director (HR & BD), Mr. P Chandrasekaran, Director (E&D), Mr. Pankaj Goswami, Director (Operations) alongwith other senior officials from OIL and senior faculty members from RGIPT.

CIL Inks MoU with EESL

Coal India Ltd. (CIL) has signed a Memorandum of Understanding (MoU) with Energy Efficiency Services Ltd. (EESL) - a JV Company under the Ministry of Power for strategic partnership to collaborate in the area of energy efficiency and resource conservation for decarbonisation of Coal India. This MoU will enable EESL to help CIL reduce 10–15% of its annual consumption of 4600 MU of energy.



Mr. Sanjiv Soni, Director (Finance), CIL and Mr. Venkatesh Dwivedi, Director (Projects & Business Development), EESL exchanging MoU documents in the presence of Mr. Pramod Agrawal, Chairman, CIL.

CIL will now collaborate with EESL in the areas of energy efficiency and resource conservation, reduce carbon footprint and improve its overall operational efficiency and profitability. EESL will help CIL with energy efficiency in processes alongwith decentralized captive solar plants and help to improve operational efficiencies of CIL's subsidiaries and reduce significant costs, without any upfront investment.

Mr. Sanjiv Soni, Director (Finance), CIL signed the MoU on behalf of CIL and Mr. Venkatesh Dwivedi, Director – Projects & Business Development, EESL signed the document on behalf of EESL. Mr. Pramod Agrawal, Chairman, CIL and FDs of CIL were present on the occasion, while Dr. Anil Kumar Jain, Secretary-Coal, Govt. of India and senior management of EESL joined the signing of MoU via video conferencing from New Delhi.

MoU between NHPC Limited and Govt. Hydro Engineering College Bilaspur

To facilitate effective utilization of the intellectual capabilities of both the organizations and to pursue academic opportunities in the field of Hydro Power, a Memorandum of Understanding (MoU) was signed between NHPC Limited and Govt. Hydro Engineering College at Corporate Office, NHPC, Faridabad.



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Mr. Avinash Kumar, ED (HR), T&HRD Division, NHPC and Prof. (Dr.) R. K. Awasthi, Director-cum-Principal, GHEC Bilaspur exchanging MoU documents in the presence of Mr. Yamuna Kumar Chaubey, Director (Technical), NHPC. Mr. V. K. Maini, ED (SBD&C), NHPC & Mr. S. L. Kapil, ED (Geology), NHPC were also present on the occasion.

MoU was signed by Mr. Avinash Kumar, Executive Director (HR), T&HRD Division, NHPC and by Prof. (Dr.) R. K. Awasthi, Director-cum-Principal, GHEC Bilaspur in the presence of Mr. Yamuna Kumar Chaubey, Director (Technical) NHPC. Mr. V. K. Maini, Executive Director (SBD&C) & Mr. S. L. Kapil, Executive Director (Geology) were also present on the occasion alongwith other senior NHPC officers.

HAL and Rolls-Royce expand Partnership with MRO and Supply Chain MoUs for Adour and Trent Engines



Mr. Abhishek Singh, VP, Business Development, Rolls-Royce handing over the MoU to Mr. Krishna Kumar, GM Engines, HAL.

Hindustan Aeronautics Limited (HAL) and Rolls-Royce have agreed to expand their partnership in India for collaboration in two significant areas – expanding the supply chain for both Civil and Defence Aerospace and establishing an authorized maintenance centre for Adour Mk871 engines to support Rolls-Royce's global customers. Through these new collaborations, the two companies will build on their rich partnership of over 60 years, wherein Rolls-Royce engines have been 'Made in India' and supported by HAL under license from Rolls-Royce.

Mr. R. Madhavan, CMD, HAL, said, "We are looking at new areas of cooperation and exports to countries which Rolls-Royce and HAL together contribute to in aerospace application."

Mr. Kishore Jayaraman, President, Rolls-Royce India and South Asia said, "We value our long-standing partnership with HAL and are proud to have been serving the Indian Armed Forces together for several decades now."

BEL signs MoU with Grene Robotics Pvt Ltd.



Mr. Rajasekharan M. V. Director (R&D), BEL and Wg Cdr M. V. N. Sai, Director, Defence, Grene Robotics and other senior officials after signing the MoU.

At Aero India 2021, Bengaluru, Bharat Electronics Limited (BEL) and Grene Robotics Pvt Ltd. entered into an MoU for co-operation in the development of Autonomous Manpads Data Link System (AMDLS) and also to leverage the policy initiatives of the Indian Government, such as Make in India. The MoU was signed on behalf of BEL and Grene Robotics Pvt Ltd. by Mr. Rajasekharan M. V., Director (R&D), BEL, and Wg Cdr M. V. N. Sai, Director – Defence, Grene Robotics, respectively.



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GRSE inks ten Strategic Collaborations at Aero India 2021



Exchange of MoUs by GRSE with their partners during Aero India 2021.

Garden Reach Shipbuilders & Engineers Ltd. signed strategic MoUs as part of the 'BANDHAN' initiative at Aero India 2021, Bengaluru, that will help the shipyard boost its Shipbuilding and Ship Repair capabilities and identify and explore synergies and partnerships for the niche 'portable steel bridges' market in India and neighbouring countries. The ten MoUs include one for 'Transfer of Technology' for Diesel Engine Infrared Signature Suppression System with M/s NSTL, Vishakhapatnam, one MoU with M/s Sterling PlanB Energy Solutions, Vancouver, Canada for Energy Storage Solutions for Electric/ Hybrid Propulsion in Ships and another with M/s GE Power for Development of Electric/ Hybrid Propulsion for Naval Platforms. In pursuit of the export market an MoU was signed with M/s ASSL, Bangladesh for Cooperation in Shipbuilding.

Other MoUs include collaborations with M/s NHIDCL for Supply of Bailey Bridges, with M/s ECT Marine, Netherlands for Design of Contemporary Dredgers, with M/s CAS Electrical & Automation Pvt Ltd. for Product Development and Service Support for Helo Handling Systems, with IIT Kanpur for Aerodynamic Studies in Ship Design, with M/s Abhyudha Bharat Defence Cluster for Indigenization of Components, with M/s Island Ship Repairers for Purpose of Ship Repairs.

NBCC signs MoU with Subsidiary Company HSCL



Mr. P. K. Gupta, CMD, NBCC and Mr. Rajendra Chaudhary, MD, HSCL alongwith other senior officials during MoU signing ceremony.

NBCC (India) Ltd., has signed an MoU with its Subsidiary Company, Hindustan Steelworks Construction Limited (HSCL) for the year 2020-21. The Annual MoU has been signed by Mr. P. K. Gupta, CMD, NBCC on behalf of NBCC and Mr. Rajendra Chaudhari, MD, HSCL and also Director (Commcl.), NBCC, signed on behalf of HSCL. Mr. Neelesh Kumar Shah, Director (Projects); Ms. B. K. Sokhey, Director, (Finance); Ms. Shalini Darbari, CVO; Mr. K. P. Mahadeva Swamy, ED, (Amrapali Projects) & CEO, HSCL; Mr. Pawan Kumar, ED (Engg.) of NBCC alongwith other senior Officers were also present on the occasion.

GSL signs MoU with HSL, Vizag for augmenting Ship Building/ Repair Capacity

During the recently concluded 13th edition of AERO INDIA – 2021, held at Air Force Station, Yelahanka, Goa Shipyard Ltd. signed five MoUs/ Agreement with various industry partners to expand its capacity for indigenous shipbuilding, ship repair and exports. MoU was signed with Hindustan Shipyard Ltd., Visakhapatnam, another MoD Shipyard to undertake repair and construction of IN/ICG ships on the Eastern seaboard to take advantage of their bigger Drydock and draught available. This will enable GSL to take repairs of much bigger ships thereby enhancing the yard capacity.

Contd... to 59



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NALCO scripts turnaround story; **Net profit jumps by 123% to Rs. 240 crore in 3rd Qtr of FY21**

National Aluminium Company Limited (NALCO) clocked a net profit of Rs. 240 crore for the 3rd quarter ended December 2020. The net profit has jumped by 123% over the previous quarter of current fiscal, which was Rs. 107 crore.

The net profit for the nine months ended December 2020 has grown more than ten-fold to Rs. 364 crore as against Rs. 35 crore in corresponding period of last year. The total income in Q3 of FY21 witnessed substantial growth, clocking Rs. 2,415 crore compared to Rs. 2,137 crore in Q3 of FY20. On sales front, the net sales of alumina hydrate for Q3 of FY21 was 3.44 lakh tonnes compared to 3.33 lakh tonnes achieved in the corresponding period of last year. Aluminium export also registered impressive



Mr. Sridhar Patra
CMD, NALCO

growth, with sales volume of 1.38 lakh tonnes during the first nine months of FY21 as compared to 0.50 lakh tonnes during the same period of FY20. On production front, the Company achieved strong growth in Q3 of FY21, with Bauxite production of 19.34 lakh tonnes, Alumina hydrate production of 5.55 lakh tonnes while metal production achieved was 1.02 lakh tonnes. During the first

nine months of the current fiscal, NALCO achieved production of 53.48 lakh tonnes of bauxite, 15.07 lakh tonnes of alumina hydrate while metal production was 3.06 lakh tonnes.

Mr. Sridhar Patra, CMD, NALCO, said, "NALCO has shown overall growth and resilience to script a turnaround after the peak period of COVID-19 outbreak. The employees and workers delivered, when it mattered under challenging circumstances. The Company is geared up to meet the increase in demand with the gradual opening up of the market and the economy. The Company is also focused on operationalizing the ongoing projects, viz. Utkal-D Coal block, 5th Stream Alumina Refinery and Caustic Soda JV projects etc., which will substantially bolster the bottomline of the Company."



Contd... from 57



Similarly, MoUs were signed with SeaTech, Singapore for undertaking engineering design work at R&D centre of GSL and also with industry representatives of Bangladesh for export of Patrol Craft and Offshore Patrol Vessel. GSL also showcased its products at a seminar hosted by Bharat Shakti at Aero Show. CMD, GSL during the panel discussion highlighted the capabilities and capacities of the yard and plan for future diversification. ■

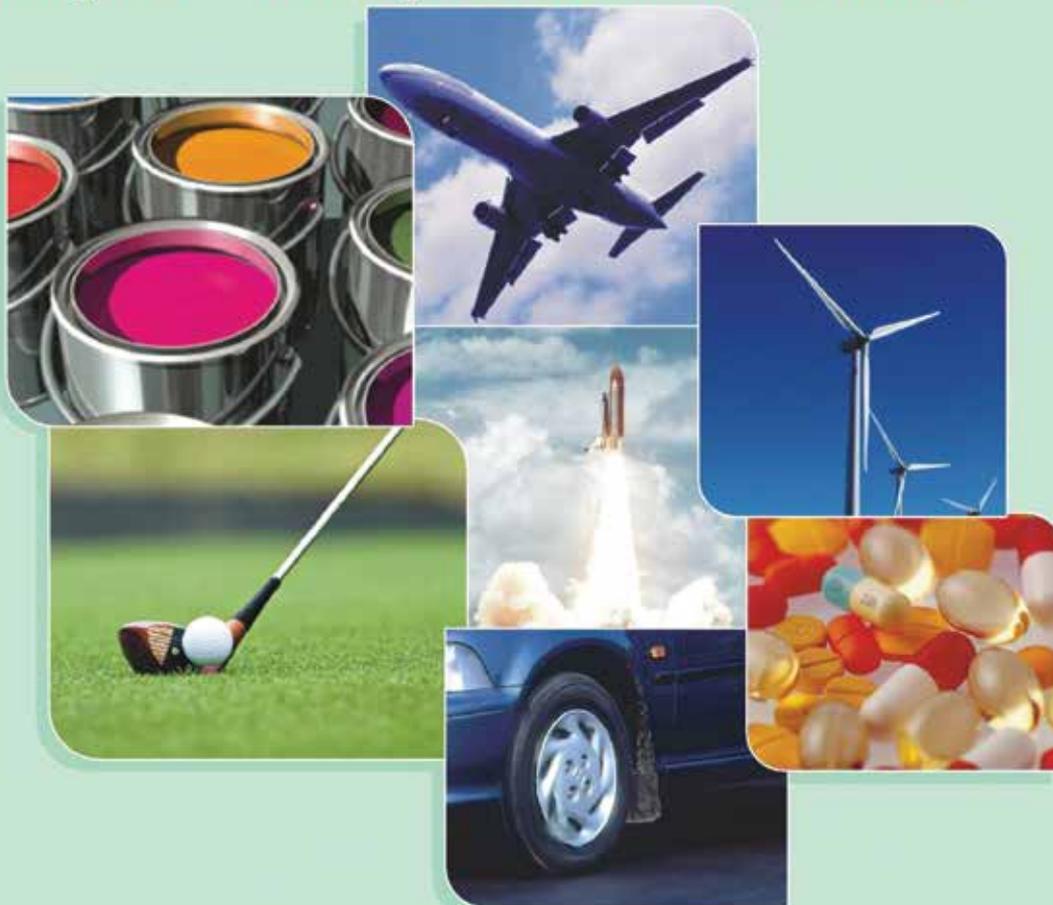


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Please contact for details

Director (Marketing)

IREL (India) Limited

(A Government of India Undertaking - Department of Atomic Energy)

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Financial Results of NLCIL

for the Quarter and Nine Months Ended 31.12.2020

Power generation during the quarter and nine months ended 31.12.2020 was 4252.82 MU and 13742.74 MU (including infirm power) respectively as against 5469.47 MU and 15801.60 MU (including infirm power) respectively in the corresponding period of the previous year. The reduction in power generation is mainly due to fire incidents in TPS-II and retirement of all units of TPS-I as on 30th Sept'2020, which was partly offset by operation of Unit-I of NNTPP Unit#1 (500 MW) and full period operation of Solar 709 MW.

Solar power generation during the quarter and nine months ended 31.12.2020 was 450.79 MU and 1445.39 MU respectively as against 304.18 MU and 894.47 MU (including infirm power) respectively in the corresponding period of the previous year, with increase of 48.2% and 61.6% respectively.

Power export during the quarter and nine months ended 31.12.2020 was 3666.55 MU and 11850.82 MU (including infirm power) respectively as against



Mr. Rakesh Kumar
CMD, NLCIL

4702.41 MU and 13520.50 MU (including infirm power) respectively in the corresponding period of the previous year.

The total income of the Company during the quarter and nine months ended 31.12.2020 was Rs. 1875.13 crore and Rs. 6110.99 crore respectively as against Rs. 2436.75 crore and Rs. 6558.63 crore respectively in the corresponding period of the previous year.

Profit after tax for the quarter and nine months ended 31.12.2020 was Rs. 74.06 crore and Rs. 386.99

crore respectively as against Rs. 361.55 crore and Rs. 1021.37 crore respectively in the corresponding period of the previous year.

The EBIDTA for the nine months ended 31.12.2020 was Rs. 2396.60 crore as against Rs. 2755.31 crore, in the corresponding period of the previous year.

For the Consolidated financial statement, the total income of the Group during the quarter and nine months ended 31.12.2020 was Rs. 2623.29 crore and Rs. 8197.94 crore respectively as against Rs. 3093.18 crore and Rs. 8187.56 crore respectively in the corresponding period of the previous year.

Consolidated Profit after tax for the quarter and nine months ended 31.12.2020 was Rs. 183.15 crore and Rs. 588.61 crore respectively as against Rs. 400.15 crore and Rs. 954.86 crore respectively in the corresponding period of the previous year.

Unit# 2 of NNTPP (500 MW) started commercial operation effected from 10th February, 2021.





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(A Govt. of India Undertaking)

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For Further Information Please Contact

Deputy General Manager (CE & CP)

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Defence Minister Inaugurates HAL's Second LCA Plant; Calls LCA Pride of India



Mr. Rajnath Singh, Hon'ble Defence Minister alongwith senior officials of HAL during the inauguration of the second LCA Plant.

The Defence Minister, Mr. Rajnath Singh inaugurated the second plant of HAL's LCA Division recently. He lauded the efforts made by HAL to increase the production capacity of LCA which is going to be the backbone of IAF fighter fleet in years to come. "HAL's new LCA facility is example of how 'Aatmanirbhar Bharat' is shaping and HAL deserves the largest indigenous order of 83 LCA Mk-IA.

Mr. Raj Kumar, Secretary, Defence Production said HAL has taken timely steps proactively to set up

the facility well ahead of receiving the order.

Mr. R. Madhavan, CMD, HAL said the Defence Minister's visit is a great moral booster to HAL. The phase -1 of the facility getting ready on 35 acres of land will enable HAL to enhance its production capacity to 16 from the current eight aircraft every year. Mr. Aravind Limbavali, Minister in Karnataka Govt, Air Marshal Sandeep Singh, DCAS, Dr. Tessy Thomas, DG (Aero) and many other senior officials from defence fraternity were present on the occasion.

NTPC Group achieves over 1 Billion Units of Daily Generation - Records Highest ever Single Day Generation

NTPC Group generated its highest ever day gross generation of 1009 Million Units recently. The achievement reinforces the Group's commitment towards excellence in operation across its power stations.

Recently, as per the data published by Central Electricity Authority (CEA), NTPC Singrauli Unit#1 in Uttar Pradesh (U.P), which had commenced operation 38 years ago, achieved the highest Plant Load Factor (PLF) of 100.24% for the period from April 2020 to December 2020. This reflects the

Operation and Maintenance capability of NTPC.

NTPC Group has achieved gross cumulative generation of 222.4 Billion Unit (BU) from April to December 2020, an increase of 3.8 percent compared to the same period last year.



NTPC being an essential service provider, it has maintained operations at its power stations uninterrupted during the lockdown phases while adhering strictly to all the COVID related guidelines issued by the Government. With a total installed capacity of 63635 MW, NTPC Group has 70 Power stations comprising of 24 Coal, 7 combined cycle Gas/Liquid Fuel, 1 Hydro, 13 Renewables along with 25 Subsidiary and JV Power Stations. The group has over 20 GW of capacity under construction, including 5 GW of renewable energy projects.



NLCIL

WORKS FOR YOUR CAUSE

At NLCIL, we are dedicated to not just mining and power generation but illuminating lives. As we help the Nation to move the wheels of progress, we ensure that the strong, dedicated and goal oriented work force, always thriving for excellence should feel happy, by providing best of everything in life ... at work ... at home ...

With a clutch of welfare schemes, we have not just built a company, but an organization that truly touches the lives of both community and consumers too.



Today we are mining 3.06 crore tonnes of lignite and generating 55.4356 lakh units of Power per hour (5543.56 MW) and have plans to become a 21 + GW company with 12.315 crore tonnes mining company (Both Lignite and Coal) by 2025. Lignite & Coal mining and Thermal, Solar & Wind power generation are the key sectors that we work for. Using the latest technology & skilled resources, we are proud to be a partner in India's progress and prosperity.



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Corporate Office :
Block-1, Neyveli 607 801.
Tamil Nadu, India
Web: www.nlcindia.com
CIN:L93090TN1956G01003507



DCIL launches

Beach Nourishment work for VPT



Mr. K. Rama Mohana Rao, IAS, Chairman, VPT & DCI alongwith other dignitaries during the launch of Beach Nourishment work for VPT.

Mr. K. Rama Mohana Rao, I.A.S, Chairman of Visakhapatnam Port Trust and Dredging Corporation of India Ltd. inaugurated the 2020-21 year beach nourishment work by DCI dredger Dredge XX at RK Beach. Speaking on this occasion Chairman, VPT & DCIL conveyed the message that every citizen has to respect and protect Nature otherwise it reacts badly.

To commence this year's dredging DCI has deployed DRXX to dredge at the VPT sand trap area and the dredged material will be pumped through floating pipelines to Kursura area situated at a distance

of 4 kms from the sand trap area. The quantity to be dredged is about 2.10 Lakh cum and work will be completed within 30 to 40 days. Chairman further added that the work of beach nourishment is being taken up by VPT under Corporate Social Responsibility alongwith other works such as sprinkling polymer on coal to form a cohesive layer so that coal dust does not spread out due to wind. Mr. Rajesh Tripathi, MD & CEO, Prof. Dr. G.Y.V. Victor, MD & CEO designate, Mr. J. Pradeep Kumar, CVO, Cap. S. Divakar, CGM and other senior officials from DCIL attended the event.

CMD, MCL visits Talcher Coalfields

As part of visit to Talcher, Mr. Prabhat Kumar Sinha, CMD, MCL inspected Lingaraj OCP and reviewed the parameters on production, productivity, OB removal and offtake to meet the annual targets. He was accompanied by Mr. O. P. Singh, Director (Tech/Operations) and GMs from Corporate office.

During his visit, CMD made it a point to reach at coal face of Ananta OCP to boost the morale of the team. In the process, he interacted with the employees and motivated them to gear up the resources for achieving the annual production target.



Mr. Prabhat Kumar Sinha, CMD, MCL visiting the Talcher Coalfields alongwith senior officials of the company.

He also addressed the bottlenecks on production and dispatch related matters as pointed out by Area officials. Earlier, he had a

courtesy meeting with Mr. Mahesh Sahoo, Hon'ble MP Dhenkanal on matters related to welfare of the people of peripheral areas.



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Ambassador of Kazakhstan visits NMDC

Discusses opportunities in Mining of Minerals



The Ambassador of Kazakhstan, H.E. Yerlan Alimbayev with CMD, NMDC Mr. Sumit Deb and Directors of the company.

The Ambassador of Kazakhstan to India, H.E. Mr. Yerlan Alimbayev, visited NMDC recently. He met Mr. Sumit Deb, CMD, NMDC, Mr. Amitava Mukherjee, Director (Finance), and Mr. Somnath Nandi, Director (Technical) to discuss ways to leverage NMDC's capabilities to further strengthen the Kazakh mining industry, including a plan to focus on strengthening the strategic partnership with high-level visits and

mutual collaborations.

Speaking on the visit, Mr. Sumit Deb, CMD, NMDC, commented, "We are very happy to host HE Ambassador Alimbayev. We had very fruitful discussions and have decided to explore mutual collaboration opportunities in many promising prospects of bilateral interest. Kazakhstan is a resource rich country and NMDC would love to share its expertise in this space with Kazakh companies."

PERSONALIA



Mr. Anuj Aggarwal
Member (HR)
assumes additional
charge as Chairman,
Airport Authority of India.



Mr. P. M. Prasad
assumes charge as
CMD, Bharat Coking
Coal Limited.



Mr. Sanjeev Kumar
assumes charge as CMD,
Telecommunications
Consultants
India Limited (TCIL).



Mr. M. V. Rajasekhar
Director (Mining &
Construction & HR)
assumes additional
charge as CMD,
BEML Limited.



Mr. R. K. Sabharwal
Director (Commercial)
assumes additional
charge as CMD,
Engineers India Limited.



Mr. Harish Kumar
assumes charge as
Managing Director,
NHDC Limited.



Mr. Rajeev Ailawadi
assumes charge as
Managing Director,
Chennai Petroleum
Corporation Limited.



Mr. Baban Singh
assumes charge as
Director (Technical),
Western Coalfields
Limited.

* **Mr. Ashutosh Gupta** assumes charge as Director (HR), National Textile Corporation Limited.



Ministry of Petroleum & Natural Gas
Government of India



Enabling 8 crore Families

Usage of traditional cooking fuels has detrimental impact on the health of women as well as on the environment. May 2016 proved to be a turning point in the lives of women in India.

'Pradhan Mantri Ujjwala Yojana' (PMUY), introduced with an objective to make clean cooking fuel, LPG, available to women in need, who were otherwise using traditional cooking fuels such as firewood, coal, cow-dung cakes, etc.

These LPG connections released in the name of the women in the household, has helped to empower them both socially and economically besides improving their health and liberating them and their family from the ill-effects of household air pollution, smoky kitchens and the drudgery of collecting firewood.



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GRSE signs Contract for 01 FPV for Government of Seychelles

A contract for delivering 01 Fast Patrol Vessel (FPV) was signed between Garden Reach Shipbuilders & Engineers Ltd. (GRSE) and Government of Seychelles.

Signing of this contract, that occurred within just a month of the shipyard concluding a contract for 01 Ocean Going Passenger & Cargo Ferry Vessel with Govt. of Guyana, signifies a breakthrough in the company's journey towards becoming a global player in the warship building arena and bears testimony to the trust; foreign countries are reposing in this Indian shipyard's abilities. The Fast Patrol Vessel will be delivered to Coast Guard of Seychelles, the archipelagic island country.

The SCG Ship 'Zoroaster', a Fast Patrol Vessel, will be a powerful,

fuel-efficient platform designed to perform multi-purpose operations, such as patrolling, anti-smuggling, anti-poaching, and search and rescue (SAR). With a maximum speed of 34 knots and an endurance of more than 1500 nautical miles, this 50 m FPV with a waterjet propulsion system and advanced controls has the capability to undertake Maritime Missions of the Seychelles Coast Guard including timely interceptions.

The ship is also fitted with a 40/60 gun as the main armament. It will also flaunt improved habitability features with fully air-conditioned modular accommodation for 35 personnel. The overall design of the FPV has developed in-house by GRSE. GRSE has the capability to construct 20



ships concurrently, using its modernized infrastructure and 'Modular Integrated Construction Philosophy'. Further, the dedicated, multi disciplinary, strong Design Team of the shipyard is continuously working towards developing various concept designs for ships that can cater to the current and future requirements of Indian Navy and Indian Coast Guard.

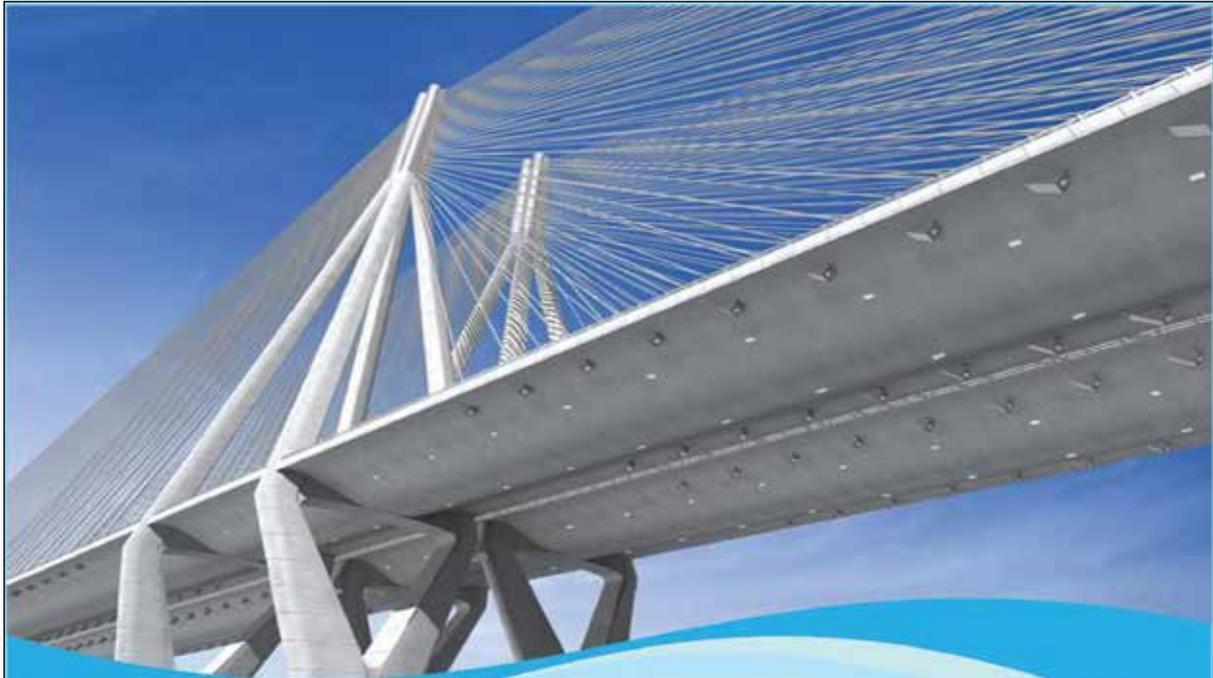
Inauguration of Smart Swapping Stations at HPCL Retail Outlets



Officials of HPCL and VoltUp during the Inauguration of Smart Swapping Stations.

HPCL in partnership with VoltUp has set up two Smart Swapping Stations at HPCL Retail Outlets in Jaipur. The Smart Swapping Station set up at the Retail Outlet M/s Bahari Goods Pvt. Ltd., Jaipur. Batteries constitute ~30%-50% cost of EV and the 2 & 3 wheeler electric vehicle market is expected to be a Rs. 50000 crore opportunity by 2025. With quick to use smart battery swapping networks, being set up under tie up with HPCL, it will promote the end users to find a fully charged battery within their neighborhood. This will also act as a catalyst in pushing the envelope of Smart Mobility in India.

HPCL, being a conscious player in the energy sector wishes to leave no stone unturned to contribute in the clean energy transition and is very actively trying to promote e-mobility in every possible way by collaborating with players like VoltUp.



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Awards & Accolades to PSEs

Director (HR), MOIL identified as among 100 Global Inspirational Women in Mining



Ms. Usha Singh, Director (HR), MOIL Ltd. has been identified as among the '100 Global Inspirational Women in Mining' by Women in Mining (UK). It is for the first time an Indian woman has been identified for this global recognition. Prior Ms. Singh was Executive Director (Personnel & Administration), NMDC alongwith heading Business Development and Corporate Planning functions. Ms. Singh has also worked for 25 years in Steel Authority of India Limited (SAIL) which includes 8 years as a Technical Advisor to Chairman, SAIL.

Oil India Limited bags the Federation of Indian Petroleum Industry Awards- 2021

Oil India Limited (OIL), won the Federation of



Hon'ble Minister P&NG and Steel, Mr. Dharmendra Pradhan handing over the E&P Company of the year award to Mr. S. C. Mishra, CMD and Dr. P. Chandrasekaran, Director(E&D), OIL.

Indian Petroleum Industry (FIPI) Award 2021 in the category Exploration & Production - Company of the Year and Excellence in Human Resource Management, in the FIPI Awards ceremony held at New Delhi. The award was presented by Hon'ble Minister of Petroleum and Natural Gas and Steel Mr. Dharmendra Pradhan and Secretary (P&NG), Mr. Tarun Kapoor in the presence of eminent personalities from the Industry and academia, to Mr. Sushil Chandra Mishra, CMD, OIL along with members on the Board of OIL including Mr. Biswajit Roy, Director (Human Resources & Business Development), Dr. P. Chandrasekaran, Director (Exploration & Development) and Mr. Harish Madhav, Director (Finance).

REC Limited conferred the 'Mahatma Award for CSR Excellence 2020'



Dr. S. Srinivas, CEO-REC Foundation receiving the Mahatma Award for CSR Excellence 2020.

REC Limited was conferred the 'Mahatma Award for CSR Excellence 2020' for its endeavours in the fields of education, nutrition, health, and the extensive humanitarian efforts undertaken to provide relief from the COVID-19 pandemic. On behalf of REC Limited, Dr. S. N. Srinivas, CEO - REC Foundation received the award.

Speaking on the occasion, Dr. Srinivas said that REC has been providing aid through its CSR activities even before it became mandatory in 2015. In the recent past, REC contributed to the betterment of health, nutrition and education parameters in seven aspirational districts. Furthermore, they have also

responded to the pandemic not only by contributing to the PM CARES Fund but also by supplying meal packages and ration to over 100,000 people in over 30 districts across the country.

PFC Bags SKOCH Gold Award in 'Best Performing PSU for COVID Activities' category



Mr. R. S. Dhillon, CMD, PFC received the SKOCH Gold Award for 'Best Performing PSU for COVID Activities' from Mr. Sameer Kochhar, Chairman, SKOCH Group. Mr. P. K. Singh, Director (Commercial) & Ms. Parminder Chopra, Director (Finance), PFC were present on this occasion.

REIL gets "Best Employer Award- 2019"



Mr. Parsadi Lal Meena, Hon'ble Minister of Industry, Govt. of Rajasthan presenting the award to Mr. Rakesh Chopra, MD, REIL.

The Rajasthan Electronics and Instruments Limited, (REIL) Jaipur was awarded the "Best Employer Award-2019" by the Employers Association of

Rajasthan for the 11th time. The award was presented by Hon'ble Minister of Industry, Government of Rajasthan, Mr. Parsadi Lal Meena to Mr. Rakesh Chopra, MD, REIL alongwith REIL officials and staff in a ceremony organized at Hotel Clark Amer.

On this occasion, MD, Mr. Rakesh Chopra emphasized that every industry should strengthen its employee and employer relationships so that a good industrial environment can be created and the targets set can be met easily on time. He said that REIL is committed to the social security, health and labor-welfare policies of its employees.

NHPC awarded ICAI award for Excellence in Financial Reporting



Mr. R. P. Goyal (2nd from left), Director (Finance), NHPC alongwith other senior NHPC officers receiving the ICAI Award for Excellence in Financial Reporting from Mr. Arjun Ram Meghwal, Hon'ble Union Minister of State for Parliamentary Affairs and HI&PE.

NHPC has been awarded as 'winner' in the category 'Silver Shield' at the ICAI Awards for Excellence in Financial Reporting for 2019-20. NHPC has received this award under the category of Public Sector Entities for its Annual Report and Financial Statement for year ended 31st March, 2020. Mr. R. P. Goyal, Director (Finance), NHPC received the award from Mr. Arjun Ram Meghwal, Hon'ble Union Minister of State for Parliamentary Affairs and Heavy Industries & Public Enterprises, Government of India at a function held at Ghaziabad.

The award has been conferred upon NHPC after review of its accounting practices while preparing financial statements and the policies adopted

for disclosure and presentation of financial statements amongst other information contained in the annual report.

NRL awarded best Governed Company, 2020

Company Secretary, NRL adjudged Governance Professional of the Year



MD, NRL Mr. S. K. Barua (3rd from left) receives award for Best Governed Company, 2020 by Mr. Ashish Garg, President, ICSI in New Delhi.

Numaligarh Refinery Ltd. was honoured with the National Award for Excellence in Corporate Governance as a Best Governed Company (Unlisted Large) by the Institute of Company Secretaries of India (ICSI), the premier national professional body set up under an Act of Parliament. The Institute also awarded Mr. H. K. Sarmah, Company Secretary, NRL with the Governance Professional of the year, 2020. The award comprising of a citation and trophy was presented to NRL team headed by MD, Mr. S. K. Barua at New Delhi by Mr. Ashish Garg, President, The ICSI joined over virtually by Mr. Piyush Goyal, Hon'ble Union Minister for Railways, Commerce & Industry, Consumer Affairs and Food & Public Distribution. Mr. Kumar Mangalam Birla, Chairman, Aditya Birla Group and members of The ICSI.

HPCL Director – Finance conferred with CA CFO Large Corporate Manufacturing & Infrastructure Award

HPCL Director – Finance, Mr. R. Kesavan has been



Mr. Nitin Gadkari, Hon'ble Minister Road Transport and Highways and MSMEs presenting the award to Mr. R. Kesavan, Director (Fin.) HPCL.

conferred with the “CA CFO – Large Corporate – Manufacturing & Infrastructure” award by the Institute of Chartered Accountants of India (ICAI). The award is in recognition of the exemplary contribution and relentless pursuit of excellence by Mr. Kesavan in the domain of Finance.

Mr. Keshavn received the award from Mr. Nitin Gadkari, Hon'ble Minister, Road Transport and Highways and Minister of Micro, Small and Medium Enterprises.

HPCL conferred with “Oil Marketing Company of the Year” Award by FIPI



Mr. Dharmendra Pradhan, Hon'ble Minister for P&N and Steel presenting the award to Mr. M. K. Surana, CMD and Mr. Rakesh Mishra, Director (Mktg.), HPCL.

HPCL has been bestowed with the 'Oil Marketing Company of the Year' Award by FIPI recently. This award recognizes HPCL's Performance Excellence amongst all Oil Marketing Companies. The award was presented by Mr. Dharmendra Pradhan, Hon'ble Minister for Petroleum & Natural Gas and Steel and Mr. Tarun Kapoor, Secretary, MoP&NG in the presence of other senior officials. On behalf of HPCL, the award was received by HPCL, CMD, Mr. M. K. Surana and HPCL Director-Marketing, Mr. Rakesh Misri.

Mr. Rakesh Chopra, M.D., REIL conferred with "CEO with HR Orientation Award"

Mr. Rakesh Chopra, Managing Director, REIL conferred with "CEO with HR Orientation Award" at Global HR Excellence Awards Ceremony 2021 organized by the World HRD Congress in Mumbai.

Mr. Chopra, has long experience of 34 years dealing in different capacities in various departments like Research & Development, Marketing and Material Management and Information Technology. Last year, he joined the rank of Managing Director and under his abled guidance now REIL is a practicing transparent work environment that would facilitate



Mr. Rakesh Chopra
MD, REIL

individuals to align their goals with corporate objectives, and hence to build a culture and environment that supports professional entrepreneurship.

Being a knowledge driven organization, REIL is committed to transform the vision and mission statements into its HR functioning to keep pace with the changing business needs.

REIL has been regularly working for sustained growth, through manpower skill up gradation by talent management, recruiting and staffing, measuring the impact of HR for performance and Bottom-line Improvement, HR Technology, building a sustainable leadership pipeline in organization and fulfilling its Corporate Social Responsibilities. ■

Balmer Lawrie celebrates 155th Foundation Day



Mr. A. Ratna Sekhar, Director [HR&CA] and CMD [Additional Charge] and Directors of Balmer Lawrie during the 155th Foundation Day Celebrations.

Balmer Lawrie & Co. Ltd. celebrated its 155th Foundation Day. To mark this occasion Mr. A. Ratna Sekhar, Director [HR&CA] and CMD [Additional Charge] hoisted the Company Flag and addressed the employees at the Corporate Office in Kolkata. Week long celebrations have been planned, during which events like talent hunt, rangoli, photography and painting competitions are being organized for the employees. Foundation Day was celebrated in all the regions across the country.



एक नवतन्त्र पीएसयू

हमारे निधि सृजन से होता है भारत रोशन

हमारी वृद्धि हमें लोगों के जीवन का कई गुना विकास करने के लिए प्रेरित करती है।

भारत के विद्युत क्षेत्र का आधार बनने की प्रतिबद्धता में, पावर फाइनेंस कॉर्पोरेशन ऑफ इंडिया का परंपरागत वृद्धि को ड्राइव करने में समर्थ रहा है जिसके लिए हमारी रणनीति की गई थी। इस विकास रात्र में हमारा हमारा लिए उद्देश्य की मर्यादात्मक प्रतिबद्धता बन गया है।

- अधिसूचना: भारत सरकार से प्राधिकारपत्र
- अब तक ₹ 6.55 ट्रिलियन से अधिक का ऋण संवितरण, विभिन्न की लागत 7.73%
- अब तक ₹ 10 बिलियन वीरवहार ऋण
- ऋण संश्लेषण की दर वर्ष 16.65%/14.32% सीएवीआर
- फोर्च्यून 500 इंडेक्स में 32वां पैक
- सर्वोच्च वित्तीय प्रतिष्ठान 'एएए'

पावर फाइनेंस कॉर्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

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तब तक दिलाई नहीं

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RINL - Vizag Steel is proud to be associated with ATAL Tunnel the longest highway tunnel at a height of 10,000 ft. Supplied major share of TMT requirements (8500 MT of Vizag Steel TMT Rebars)

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METRO RAIL

Delhi, Hyderabad, Kolkata, Chennai, Jaipur, Mumbai, Kochi & Nagpur, Pune

NUCLEAR POWER PLANTS

Kudankulam, Kaiga, Tarapur

THERMAL POWER PLANTS

Dhabol, Rajpura

NATIONAL HIGHWAYS

Yamuna Expressway, Ahmedabad-Vadodara Expressway, Eastern Freight Corridor, Mumbai-Pune Express way

HYDRO-ELECTRIC POWER PROJECTS

Alkananda, Sardar Sarovar

◆ Bandra-Worli Sea Link Bridge, Mumbai

◆ Visakhapatnam Port Trust

उत्पाद श्रेणियाँ व उपयोग PRODUCT MIX & APPLICATIONS



WIRE RODS

5.5mm - 20mm

Wire drawing, Bright bars, Fasteners etc.



ROUNDS

16 - 95mm

20-45mm with Straight Cut Head
45-95mm straight length
Fasteners, Forging, Re-rolling, Railways, Construction



VZAG TMT REBARS

8mm - 36mm

Construction - Reinforcement



BILLETS / BLOOMS

65mm, 77mm, 90 mm / 150mm, 200mm

Bright bars, Forging, Re-rolling, General Engineering purposes



VZAG UKIP STRUCTURALS

Angles 75 x 75 x 6 - 150 x 110 x 10mm
Channels 100 x 50 - 200 x 75mm
Beams 125 x 75 - 150 x 75mm
Plates 40 x 12 - 100 x 20mm

Construction, Fabrication, Auto Leaf Springs

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www.vizagsteel.com

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(भारत सरकार का उद्यम)
विशाखपट्टणम इस्पात संयंत्र

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