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society of energy engineers and managers



www.seemindia.org

Message from President

SEEM gears up for next level of growth after the hiatus caused by the pandemic induced confinements. We will begin the new year with the triennial International Event SEEM co hosts with Non Alignment Movement Science and Technology Centre(NAM S&T Centre). This time the theme of the conference is Industry 4.0 to Net zero. We have imaginatively married a technology concept with a global imperative.

The technologies of industrial automation, Internet of things artificial intelligence and internet aided energy management all contribute effectively towards resource optimization and will ultimately aid our goal of going net zero by middle of the century. This will be particularly important to developing nations under the banner of NAM S&T centre and definitely some of them look up to India for technological guidance and leadership. In that context our January conference makes immense contemporary sense. I call upon all industry professionals to grab this opportunity, be a part of the conference either as a giver of knowledge or taker of knowledge. The details are all given elsewhere on this News letter which will guide how to register and benefit.

Jai Hind!! Happy New Year!!!



National President

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Energy Conservation Thoughts...!

December fourteenth is observed as National Energy Conservation day in India. Functions are held in institutions and organizations to reinforce the message to all citizens. The occasion gave me chance to reflect on my brush with energy conservation. As a student of energy at the start of my second career, I tended to believe that energy conservation is a concept which took root in last century. When I delved deep into the subject it was revealed to me that the history and civilization of mankind is intertwined with conservation of energy and numerous energy transitions. These energy transitions and man's quest for more and more surplus energy shaped the history, culture and civilization of the planet. It became known to me that the energy conservation started when man started walking on two legs and he had spare hands to carry back food away from the point of gathering for consumption later. Food being the earliest source of energy, this was thought of as man's first brush with energy conservation.

I was wrong here again. I recently read about two scientists from Pennsylvania University, M/s. Jamaes G Ferry and Christopher H House have put forth an Energy Conservation path theory of origin of life. The conventional theories for origin of life are - heterotrophic theory where it argues that organisms derived its nutritional requirements from complex organic substances whereas the chemoautotrophic theory postulates that organisms, typically bacterium derived energy from oxidation of inorganic compounds. Now the new theory puts forward that it is the energy conservation path which lead and directed the early evolution of the first living cells.

This is a very interesting turn as we were counting on energy conservation as means of extending our existence. That very energy conservation has now is projected as the very cause of our existence. The more you learn and try to know, the more it is revealed to you on our ignorance. As with any other branch of knowledge, the study of energy conservation also is proving this old adage.

Thus with new frontiers getting added to energy conservation and broader energy studies, the subject is getting more and more exciting. It may appeal to many an inquisitive mind to explore the field and reap rich dividends. To be frank, it was my tryst with SEEM which motivated me to delve deep into this subject which I first thought was an engineering subject. Interestingly now I am humbled by the fact that there is no facet of life, no branch of knowledge which is untouched by energy.

Greetings to you all on the occasion of yet another National Energy Conservation day.

Happy New Year!!!











About SEEM

Society of Energy Engineers and Managers (SEEM), India is the national professional body of Certified Energy Managers, Auditors and Energy Professionals in India. SEEM has 15 chapters and 7 centers, spread over 22 states, and is engaged in delivering networking and skill development opportunities to its members and the energy community, by organizing training programs, workshops, etc.



SEEM works to help industries achieve the important goal of realizing energy efficiency, choosing the right service that gives the best



possible outcome from energy audits, and engaging in meaningful discussions to achieve industrial energy efficiency targets.

About NAM S&T Centre

The Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) is an Inter-Governmental Organisation with a Membership of 47 countries spread over Asia, Africa, Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India to undertake a variety of programs, including organisation of workshops, symposiums and training courses and implementation of collaborative projects.



The Centre's activities provide opportunity for scientist - to - scientist contact and interactions, participants on the developments and techniques in the subject areas.





PROGRAM

About Industry 4.0

The principle of Industry 4.0, unlike the traditionally hierarchical and centralized manufacturing system, exhibits a decentralized architecture in which autonomous industrial things connect with one another. These autonomous things interact among themselves with a connected Decision Support System (DSS) to self-diagnose and self-respond in the overall manufacturing scenario. technologies that are incorporated for the decision making are the Internet of Things (IoT), Cloud Computing, and Big Data.



The overall framework of these technologies is connected under a common platform called Cyber Physical System (CPS). CPS is a backbone of Industry 4.0, where the physical world and virtual space are linked for a live communication environment of the shop floor.

The Training Workshop intends to provide basic knowledge on the subject through interactive lectures about various aspects of the Industry 4.0 framework and explore the management practices of Industry 4.0 as well as opportunities and challenges of management in Industry 4.0 era.

INVITATION FOR PARTICIPATION AS INDIAN DELEGATE

Industry 4.0 to Net Zero

able to rise to new challenges in industry and professionals who want to keep up with industry

Takeaways

- Exposure to cutting edge technologies in Industry 4.0 and Energy Management.
- Case studies highlighting salient features of transition to Industry 4.0.
- Easy adoption methods for Industry 4.0 technologies.
- Familiarization with leading technology providers.
- Align with energy norms in industry and energy practices.
- Identifying growth opportunities in the energy domain.

Participation Fee:

Rs. 2.000 (including GST

Rs. 1,000 (Including GST

Rs. 500 (Including GST) An Early Bird Discount of 20% apply for registrations received prior to December 20. Group Discount of 10% apply for

Registration Link: https://forms.gle/peugrLQVokQrjZ7J7



Topics

Technical Session 1 : INDUSTRY 4.0 CONCEPT AND TECHNOLOGIES

- Digital Manufacturing and Design (DMD)
- Cyber Security and Blockchain for Industry 4.0

Technical Session 2: INDUSTRY 4.0 AND SUSTAINABLE ENERGY

- Industry 4.0 and Renewable energy
- Regulatory changes that drive Sustainable energy
- Sustainable Energy Technology and Products

Technical Session 3A : PRESENTATION BY NAM DIGNITARIES. 3B : PANEL DISCUSSION

Technical Session 4: Energy Management for Industry 4.0

- Driving Energy Efficiency through the Industry 4.0 Approach
- Technologies for Energy Management for Industry 4.0

: +91 471 255 7607 Tel

Industrial Internet of Things (IIoT)

E-Mail: seemhq2011@gmail.com Reactive to Proactive Maintenance through IoT Industry 4.0 New working methods and business models

Website: www.seemindia.org

Society of Energy Engineers and Managers, SEEM Bhavan,

KRA A79, Kannammoola, Trivandrum, Kerala, India - 695 011.



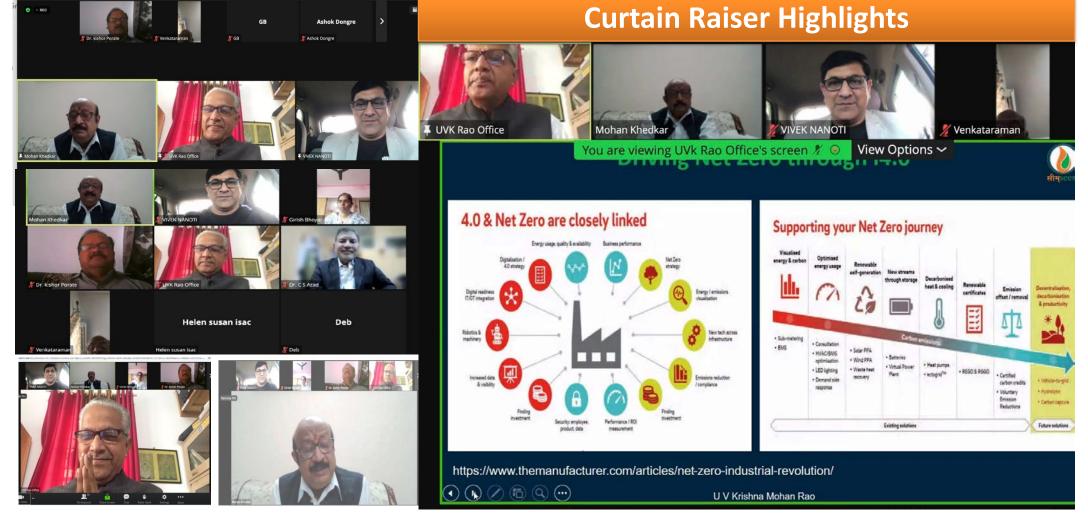
Ms. Saranya

Executive: +91 94460 67607



Curtain Raiser - The International Training Workshop on 'Industry 4.0 and Energy Management'

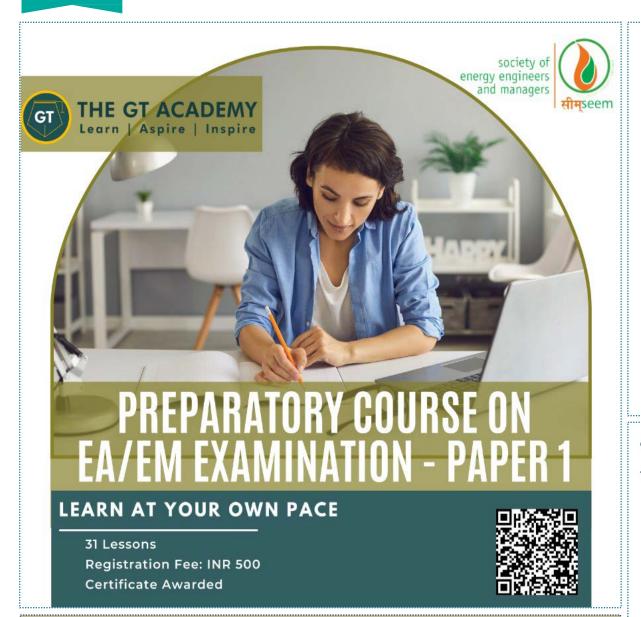
A Curtain Raiser was organised by SEEM on 19th December 2021 for the International Training Workshop on 'Industry 4.0 and Energy Management' organising by The Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) and Society of Energy Engineers and Managers (SEEM), India. Around 250 participants attended the Curtain Raiser. Mr. UVK Rao, Fellow, SEEM was the Speaker of this Curtain Raiser. The event was hosted by PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR. Prof . Mohan Khedkar Chairman of SEEM - NAM S&T Committee introduced the speaker Mr. UVK Rao. Dr. Vivek Nanoti, Director, PCE Nagpur proposed the vote of thanks.







PROGRAM



Registration fee:

Paper 1 - Rs. 500 + GST

Paper 2 - Rs. 1250 + GST

Paper 3 - Rs. 1250 + GST

Paper 4 - Rs. 1500 + GST

Total Cost - Rs. 4500 + GST

If you would like to register for all 4 papers, the fees will be only Rs. 4000 + GST.

What Will You Learn?

This is the 21st National Certification **Examination of Energy Managers and** Energy Auditors, conducted by the Bureau of Energy Efficiency. This exam certifies energy managers and energy auditors in India.

This course will take you through Paper - 1 of the 4 books that needs to be referred during this examination.

Topics Of Interest

- Energy Conservation Act 2001 & Related Policies
- Energy Scenario Global & Indian
- Energy & Financial Management
- . Energy Monitoring & Targeting
- · Project Management Cycle
- · Renewable Energy
- Measurement & Verification
- Material & Energy Balance

For more details and registration, please Paper 1 Click Here Paper 2 Click Here Paper 3 Click Here Paper 4 Click Here

Contact: Mr. Mohammed Arshad Mob: 87448 15570 E-mail : training@greentree.global





REPORTS

Webinar on Low Temperature Refrigeration

Society of Energy Engineers and Managers, Karnataka Chapter organised a webinar on "Low Temperature Refrigeration systems" on 11th December 2021 at 07:30 to 08.30pm. Mr. A. Srinivas, Rtd. Maintenance Engineer, BAARC was the presenter of the program. Topics covered in the webinar were:

- ✓ Working principles of low temperature chillers.
- ✓ Methods of power saving in refrigeration and air conditioning systems.
- ✓ Details of Manufacturers and Suppliers of low temperature chillers.

There was a 15 minutes Q & A Session after the presentation.

Webinar on "Best Energy Practices in **Electrical and Thermal Utility" and** "Energy Efficiency and PAT impact".

Society of Energy Engineers and Managers, AP & Telangana Chapter organised a webinar on "Best Energy Practices in Electrical and Thermal Utility" and "Energy Efficiency and PAT impact" on 14th & 15th December 2021 at 06:30 to 07:30 pm. Dr. G Subramanyam, Chairman, AP & Telangana Chapter (Director & CEO, Siri Energy & Carbon Advisory Services Pvt. Ltd. and Mr. Gopalakrishna Ronanki , Member, SEEM (Senior Adviror, Zenith Energy Services Pvt. Ltd.)

SEEM member was one of the speakers of Webinar on "Lightning Protection and Earthing system in buildings"

International Copper Association India organised a webinar on 17th December 2021 at 04:00pm to 05:30 pm . Mr. G Krishnakumar, Immediate Past General Secretary and Fellow, SEEM and Dr. K. Janakiraman, Head Technical (TBS), OBO Bettermann India were the speakers of the program. Focus points were: Lightning protection installation, Structural lightning protection systems, Earthing practices and recommendations and Earthing Systems best practices.



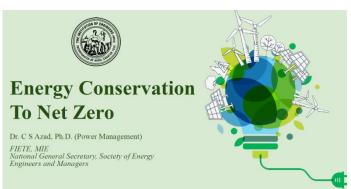




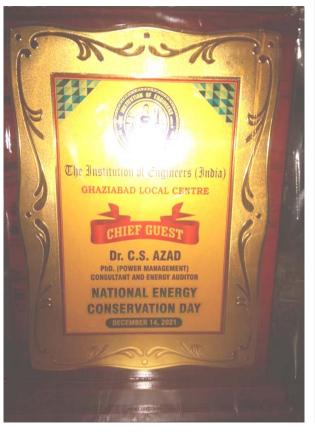


Energy Conservation Day 2021 Celebration by Institution of Engineers (India)

On the occasion of Energy Conservation Day 2021, General Secretary SEEM, Dr. C S Azad was invited as chief guest of Energy Conservation Day celebration at Institution of Engineers local centre, Ghaziabad. Speaking on the occasion, Dr. Azad explained the linkages of Energy Conservation and Net Zero. He also deliberated upon need of energy efficiency to meet India's target of Net Zero by 2070 and SEEM activities.







In this New Year, please be a part of a movement to usher in clean energy for the Nation's progress.

Join SEEM....

Click here!







Blue-sky thinking: net-zero aviation is more than a flight of fantasy - ET Energy World.

Delhi: As international air travel rebounds after COVID-19 restrictions, greenhouse gas emissions from aviation are expected to rise dramatically - and with it, scrutiny of the industry's environmental credentials.

Aviation emissions have almost doubled since 2000 and in 2018 reached one billion tonnes. Climate Action Tracker rates the industry's climate performance as critically insufficient.

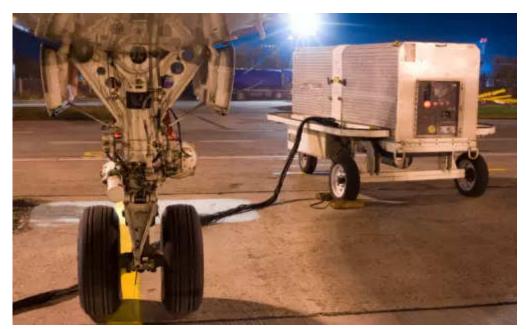
As the climate change threat rapidly worsens, can aviation make the transition to a low-carbon future - and perhaps even reach net-zero emissions? The significant technological and energy disruption on the horizon for the industry suggests such a future is possible.

But significant challenges remain. Achieving a net-zero aviation sector will require a huge collaborative effort from industry and government - and consumers can also play their part.

Build back better

The aviation sector's progress in cutting emissions has been disappointing to date. For example, in February last year, research on the world's largest 58 airlines found even the bestperforming ones were not doing anywhere near enough to cut emissions.

Most recently, at the COP26 climate change summit in Glasgow, the industry merely reasserted a commitment to a plan known as the Carbon Offsetting and Reduction Scheme for International Aviation.



GThe scheme relies on carbon offsetting, which essentially pays another actor to reduce emissions on its behalf at lowest cost, and doesn't lead to absolute emissions reduction in aviation. The scheme also encourages alternative cleaner fuels, but the level of emissions reduction between fuels varies considerably.

overnments have generally failed to provide strong leadership to help the aviation sector to reduce emissions. This in part is because pollution from international aviation is not counted in the emissions ledger of any country, leaving little incentive for governments to act. Aviation is also a complex policy space to navigate, involving multiple actors around the world. However, COVID-19 has significantly jolted the aviation and travel sector, presenting an opportunity to build back better - and differently.

Griffith University recently held a webinar series on decarbonising aviation, involving industry, academic and government experts. The sessions explored the most promising policy and practical developments for net-zero aviation, as well as the most significant hurdles.

Nations soaring ahead

Some governments are leading the way in driving change in the aviation industry. For example, as a result of government policy to make Sweden climate-neutral by 2045, the Swedish aviation industry developed a roadmap for fossil-free domestic flights by 2030, and for all flights originating from Sweden to be fossil-free by 2045.

Achieving fossil-free flights requires replacing jet fuel with alternatives such as sustainable fuels or electric and hydrogen propulsion.

The European Union plans to end current tax exemptions for jet fuel and introduce measures to accelerate the uptake of sustainable fuels.

The United Kingdom is finalising its strategy for net-zero aviation by 2050 and a public body known as UK Research and Innovation is supporting the development of new aviation technologies, including hybrid-electric regional aircraft.

Australia lacks a strategic framework or emissions reduction targets to help transition the aviation industry. The Emerging Aviation Technology Program seeks to reduce carbon emissions, among other goals. However, it appears to have a strong focus on freight-carrying drones and urban air vehicles, rather than fixed wing aircraft.

Building tomorrow's aircraft

Low-emissions aircraft technology has developed substantially in the last five years. Advancements include electric and hybrid aircraft (powered by hydrogen or a battery) - such as that being developed by Airbus, Rolls Royce and Zero Avia - as well as sustainable aviation fuels.

Each of these technologies can reduce carbon emissions, but only battery and hydrogen electric options significantly reduce non-CO₂ climate impacts such as oxides of nitrogen (NOx), soot particles, oxidised sulphur species, and water vapour.





For electric aircraft to be net-zero emissions, they must be powered by renewable energy sources. As well as being better for the planet, electric and hydrogen aircraft are likely to have lower energy and maintenance costs than conventional aircraft.

This decade, we expect a rapid emergence of electric and hybrid aircraft for short-haul, commuter, air taxi, helicopter and general flights. Increased use of sustainable aviation fuel is also likely.

Although electric planes are flying, commercial operations are not expected until at least 2023 as the aircraft must undergo rigorous testing, safety and certification.

Overcoming turbulence

Despite real efforts by some industry leaders and governments towards making aviation a net-zero industry, significant strategic and practical challenges remain. Conversion to the commercial mainstream is not happening quickly enough.

To help decarbonise aviation in Australia, industry and government should develop a clear strategy for emissions reduction with interim targets for 2030 and 2040. This would keep the industry competitive and on track for net-zero emissions by 2050.

Strategic attention and action is also needed to:

- ✓ advance aircraft and fuel innovation and development
- ✓ update regulatory and certification processes for new types of
- ✓ enhance production and deployment of new aviation fuels and technologies
- ✓ reduce fuel demand through efficiencies in route and air traffic management
- ✓ create "greener" airport operations and infrastructure
- ✓ build capability with pilots and aerospace engineers.

The emissions created by flights and itineraries can vary substantially. Consumers can do their part by opting for the lowestimpact option, and offsetting the emissions their flight creates via a credible program. Consumers can also choose to fly only with airlines and operators that have committed to net-zero emissions.

Net-zero aviation need not remain a flight of fantasy, but to make it a reality, emissions reduction must be at the heart of aviation's pandemic bounce-back.

https://energy.economictimes.indiatimes.com/news/oil-Source:: and-gas/blue-sky-thinking-net-zero-aviation-is-more-than-a-flightof- fantasy/88392020

Coal studded with rocks and mud is India's new energy headache



New Delhi: India's power producers have a new problem now that a squeeze on coal supply has eased, they're contending with declining quality of domestic fuel -- an issue that risks adding costs and wrecking equipment.

Electricity producers have complained to the country's power ministry about increasing instances in recent months of impurities such as rocks and mud being found mixed with coal, according to government and company officials with knowledge of the issue.

Coal that's laced with rubble or other material can damage power plant equipment such as conveyor belts, crushers and even boiler parts if not filtered out. That can cause supply delays and increase costs, according to the people, who requested anonymity to provide detail of private discussions on the issue.

"The recent trend is toward a deterioration in quality instead of improvement," said Ashok Khurana, director general at New Delhi-based Association of Power Producers, which represents electricity generators, and a former power ministry official. Khurana didn't address specifics about coal being mixed with contaminants.

Mines across India have been ramping up production in the past few months to ease a supply crunch that caused widespread power shortages and curbs on industrial activity earlier in the year. Coal inventories at India's power stations were at 19.5 million tons on Dec. 13, after rebounding from a low of 7.2 million tons in October. Coal India wants the level to reach more than 45 million tons by the end of March.

The power ministry didn't immediately respond to requests seeking comment.

Disputes over coal quality have simmered for years, though have worsened lately, the people said. The issue has arisen at a time when state-run miner Coal India Ltd. has been under pressure to rapidly lift output amid handling challenges from the country's least-productive rainy months, which often include water-logged mines and roads.

"Under pressure to meet high demand for coal, quality may have taken a backseat," said Rupesh Sankhe, vice president at Elara Capital India Pvt. in Mumbai. "Supplying poor-quality coal is a no win: it hurts the generators with extra costs, and it drags Coal India into disputes with its customers and distracts it from their performance targets."

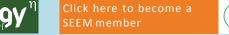
Coal India, which produces more than 80% of the nation's supply of the fuel, acknowledged recent rains had impacted quality, though declined to comment on the power producers' specific complaints.

"Due to heterogeneous nature of Indian coal, the quality always varies to some extent in all three directions in the coal deposits," the Kolkata-based miner said in a written response to questions. "This variation could be below or above the average declared grade." Coal India typically prices the fuel in 17 grades dependent on the gross calorific value of the material.

Source::

https://energy.economictimes.indiatimes.com/news/coal/coal -studded-with-rocks-and-mud-is-indias-new-energyheadache/88356827





iCreate facilitates investment partnership between Charge+Zone, Gujarat govt for EV charging infra

New Delhi: Ahmedabad-based start-up incubation centre iCreate has facilitated an investment partnership worth USD 300 million between Charge+Zone and the Gujarat government to set up 50,000 EV charging stations across the country.

The two partners signed an initial pact in this regard on Monday as part of the investment promotion activity for the forthcoming Vibrant Gujarat Global Summit in January next year, with an objective to amplify the charging infrastructure for EVs on national and state highways across India, according to a statement.

Charge+Zone, an EV charging networks provider, has created an active business-to-business (B2B) and business-to-consumer (B2C) network for EV charging for both fleet and retail customers by setting up over 1,250 charging points across over 400 charging stations, serving around 3,000 EVs (cars and buses) on a daily basis, according to the statement.

Under the collaboration, a network of 10,000 un-manned and app-driven charging stations will be set up on the national and state highways within Gujarat and scale it up to over 50,000 charging stations to cover pan-India.



The memorandum of understanding (MoU) signed between both the parties aims to further electrify 10,000 km of national and state highways in the next 3-5 years with super-fast charging stations, it stated.

It will also lay the foundation in creating a robust charging infrastructure model for the country, thereby helping enable e-mobility for the consumers, it stated.

It added that the Gujarat government will facilitate Charge+Zone to obtain necessary clearances and approvals from the departments concerned of the state as per the existing policies of the state government.

"This MoU with the Gujarat government coupled with the successful magnetless EV motor project with Sona Comstar and our EVangelise EV Innovation programme have made iCreate a reference point for EV innovators in India," iCreate Chief Executive Officer Anupam Jalote said.

Supported by iCreate, Charge+Zone also provides comprehensive EV charging solutions by offering energy-as-a-service with battery swap stations, app-driven convenience and cloud-based technology, it said.

While the national/ state highways will be deployed with super-fast charging stations, the EV charging network company aims to bring in AC type-2 max charger and AC type-2 mini chargers for corporate campuses, gated communities, and business/IT parks, among others, the statement said.

"It is an honour for us to partner with the government to electrify the roadways with EV charging points in the country. With this, we have taken a step closer towards achieving our mission of setting up one million charging points in the country and consequently, accelerating the adoption of EVs in the country," Charge+Zone founder CEO Kartikey Hariyani said.

The company said it now looks forward to setting up new hubs for over 3,000 electric buses for intercity public transportation in over 10 states.

Create (International Centre for Entrepreneurship and Technology) is an autonomous centre of excellence of the Gujarat government is India's largest institution for transforming start-ups based on tech innovation into successful businesses.

Located in a state-of-the-art 40-acre campus at Dev Dholera in Ahmedabad, it has till date supported over 444 innovations and over 30 patents with a 'high-touch, entrepreneur-first' model, connecting them with mentors, markets and money.

Source:: https://energy.economictimes.indiatimes.com/news/power/icreate-facilitates-investment-partnership-between-chargezone-gujarat-govt-for-ev-charging-infra/88401974



ZR Power inks pact with Maharashtra Govt. to build energy plants/data centres

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New Delhi: ZR Power Holdings has inked a pact with the Maharashtra government to build sustainable energy manufacturing plants/data centres having world-class facilities in Pune and Navi Mumbai with a development potential of Rs 1,200 crore. "ZR Power Holdings Limited, a leading energy producer from Hyderabad has embarked on a new journey by signing a Memorandum of Understanding (MOU) with the Government of Maharashtra in presence of Subhash Desai, Minister of Industries, Govt of Maharashtra, Dr P. Anbalagan, CEO, Maharashtra Industrial Development Corporation (MIDC) and Baldev Singh, additional chief secretary industries," a statement said.

According to the statement, the agreement was signed in Dubai. The MOU aims to build state-of-the-art sustainable energy manufacturing plants/data centres with world-class facilities in Maharashtra.

Under the MoU, a total of two ZR Data Centres have been proposed in markets like Navi Mumbai and Pune totalling a development potential of Rs 1,200 crore and generating direct employment for 300 employees.

The proposed cost for the ZR Data Centre in Navi Mumbai is Rs 800 crore, and Rs 400 crore for the ZR Data Centre 2 at Pune, as per the statement.

"We are honoured to sign this Memorandum of Understanding with the Government of Maharashtra," said Zain Ravdjee, founder of <u>ZR Power Holdings Ltd.</u>

The pact marks long-term cooperation between the Maharashtra government and ZR Power Holdings Limited. Maharashtra, as a state, is the country's economic engine, and we intend to increase our investment with the goal of improving the state's technical infrastructure, according to the statement.

These two projects will solidify ZR Group's leadership in the data centre industry.

ZR Power Holdings Ltd is a sustainable energy producer headquartered in Telangana. The firm also constructs data centres.

ZR Renewable is a subsidiary of ZR Power Holdings Ltd and an Independent Power Producer (IPP), established in 2011 by Ravdjee to solve the gap in renewable energy supply and promote renewable energy power projects for sustainability and efficiency in the country. It is one of the most significant branches of ZR Power Holdings Ltd.

Given the evident social and economic advantages of the investments, the Maharashtra government has vowed to assist in streamlining the regulatory processes and permissions for the two projects to promote general ease of doing business

ZR Power Holdings Ltd, promoted by the renowned Ravdjee Family, remains committed and will work closely with the government to propel economic growth. The company has grown exponentially and is looking to expand into other forays by FY2023.



Source: https://energy.economictimes.indiatimes.com/news/renewable/zr-power-inks-pact-with-maharashtra-govt-to-build-energy-plants/data-centres/88408814

Rajasthan HC stays work on mega solar project in Sambhar



The Rajasthan High Court on Monday ordered Hindustan Salt Ltd to refrain from any further action to set up the 4,000MW solar plant in Sambhar lake in view of the environmental damage and ecological imbalance the project would create.

On December 11, TOI had reported that Sambhar Salt Ltd, the subsidiary of Hindustan Salt Ltd, had invited expression of interest (EoI) from solar power developers for setting up the mega solar plant.

JAIPUR: Amicus curiae R B Mathur applied for a stay on the project attaching a copy of the TOI report along with the EoI for the project. "The court took note of the Times of India report published on December 11 and listened in detail to the arguments before passing the order that Hindustan Salt Ltd can receive the applications in response to the EoI but cannot take any further action," Mathur said. The court was prima facie satisfied with the concerns raised in the application and the TOI report before passing the order, Mathur said.

TOI had reported that over 16,000 acres would be required to set up the 4,000MW plant. This would mean setting up solar panels in large swathes of land. It is feared that such a large-scale project on the wetland could wipe out the ecosystem with all its genetic diversity. Currently, no single entity is responsible for the management of Sambhar. But the multi-departmental Sambhar Development Agency, which is awaiting the law department's approval, is expected to play a key role in protecting the wetland and creating a sustainable model for development for the benefit of local communities.

A solar project of similar capacity was first proposed by former prime minister Manmohan Singh in 2013 when he had come to Jaipur to campaign for the party in the run up to the state elections. After Vasundhara Raje came to power, the project was junked as it would damage the wetland's environment and ecosystem

Source: https://energy.economictimes.indiatimes.com/news/power/tata-power-delhi-distribution-installs-over-1400-ev-chargers-in-delhi-ncr/88401912





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SEEM Individual Memberships Fee & Benefits

SI.No	Membership Category	Membership Fee	Annual Fee	Total Amount (Including tax)
1	Annual Membership / Annual Associate Membership	Rs. 2500	Rs. 500	Rs. 3540
2.	Annual Fellowship	Rs. 3000	Rs. 1000	Rs. 4720
3.	Life Membership	Rs. 6750	Not Applicable	Rs. 7965
4.	Life Fellowship	Rs. 12,000	Not Applicable	Rs. 14160
5.	Student Membership	Rs. 500	Rs. 500	Rs. 1180

Who can join SEEM?

- BEE Certified Energy Auditor
- BEE Certified Energy Manager
- Engineers working in energy related field holding a position of high responsibility with minimum 20 years experience
- Any Degree/ Diploma holders working in the field of Energy Efficiency/ Energy Conservation/
- Renewable Energy for the last two years
- Engineering students and students who would like to do research or undertake projects in the energy sector

Benefits to Members

- Opportunities to get your case studies published in SEEM print magazine "Energy Manager"
- Opportunities to publicize your efficiency initiatives in the monthly e-newsletter SEEM News
- Speaking / Presentation opportunities at various forums
- Opportunities to constructively participate in various discussions in the energy sector
- Opportunities to become a SEEM Trainer / Expert Faculty
- Opportunities to become a SEEM Mentor for Student Chapters
- Leadership and participation opportunities in various SEEM programmes
- Networking opportunities with many energy professionals from across the country
- Knowledge enhancement platform in the energy sector
- Right to cast vote at the SEEM Annual General body Meeting
- All communications, which includes: notices about meetings, invitation to events, announcements about the SEEM activities.
- Priority to participate in funded projects carried out by SEEM in the energy sector, on the terms and conditions appropriate to such projects
- Support for addressing relevant grievances

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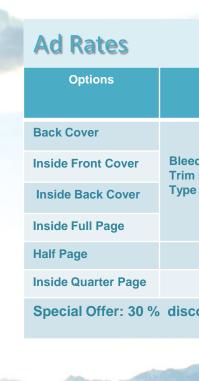
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