

ENGINEERS INDIA

REVOLUTIONIZING WATER TREATMENT FOR THE BETTER

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We at **NJSEI**
as **one family**,
have been
collectively working
together to exceed
client's expectations
and **achieve**
client advocacy

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The COVID-19 pandemic in 2020 was nothing less than a global disaster. However, it came as a blessing in disguise for the environment. As factories, offices, schools, colleges, and other public places remained shut, less energy was consumed and less pollution generated.

Amid the heart wrenching atmosphere of sickness and death due COVID-19 and mass unemployment caused due to lockdowns and reduced spending, we saw nature refreshing herself. Major water streams and rivers were less polluted due to reduced human industrial activity. The break helped the environment and wildlife to revive and imparted lessons for the humankind to watch their actions and take precautionary steps.

However, for the past decade many industries in India have been on a mission to reduce and prevent water pollution in India through their ambitious wastewater treatment and recycling projects. One such organization setting milestones in Indian Water Sector is **NJS Engineers India Pvt. Ltd. (NJSEI)**. NJSEI, a subsidiary of NJS Co. Ltd., Japan was established in 2007 with a vision of being a leading engineering consulting firm in India. We had an opportunity to interview **Dr Uday G. Kelkar, Managing Director and CEO** of NJSEI, for the latest edition of Insights Success – “*India's Best Water Treatment Companies to Watch-2021.*” The company aims to provide conventional as well as innovative and cost-effective solutions to customers to mitigate environmental problems in India.

INDIA'S BEST
WATER
Treatment
COMPANIES TO WATCH-2021 



We aim to be **pre-eminent consultants** in the eyes of our clients in **delivering optimal solutions**; to be recognized as an **employer of choice** amongst the talented and **diversified professionals** in **India** and to deliver **collective solutions** that **empower our clients** to significantly **improve the Environment**



“While achieving this goal our focus will be on maintaining an exceptional client service with sustainable solutions and growth” says Dr Kelkar.

Eco consultants at the forefront

NJSEI, an ISO 9001-2015 organization, inculcates global environmental engineering expertise to deal with the diverse Indian conditions. With constant weather changes and complex consumption and demand in densely populated cities, water management and wastewater treatment sector in India highly demands robust solutions to sustain longer.

Responding to this demanding scenario, NJSEI has focused its core business practices on Water and Energy for clients in India and worldwide.

“NJSEI is at the forefront in providing wide Environmental Consulting Services with a clear focus on Water and Waste Management.” Dr Kelkar says, “We cover a gamut of Environmental Engineering disciplines that are thoughtfully mapped into the project cycle.”

Dr Kelkar further elaborated the company’s range of activities include:

- Initial Project Identification Studies
- Master Planning
- Analysing Technical, Economic, and Financial feasibilities
- Detailed engineering design
- Cost estimations
- Preparation and evaluation of tender documents
- Construction supervision and contract management

Technology to procure energy-efficiency

Technology has been the company’s key in implementing unique and innovative solutions to complex problems. NJSEI is well-versed with the demand and opportunities of incorporating technology into Water and Waste Management sector. The company has been leveraging software enabled tools and associated technologies to deliver differentiated solutions in India funded by national and international agencies.

Adopting different business models to suit projects

Along with providing diversified solutions, NJSEI is taking the business game one step ahead by inculcating different business models such as DBO, PPP, and Hybrid Annuity. With the motto of working towards one goal as one team,

NJSEI is striving to cement its position as a “Thought Leader” in the environmental infrastructure.

Setting sustainable examples

Since its inception, NJSEI has engineered some of the biggest treatment and reuse facilities in India. Some of these projects had eminent local and international financial institutes on-board such as the World Bank, Asian Development Bank, Japan International Cooperation Agency, Japan Bank for International Cooperation, Inter-American Development Bank, and the World Health Organization (WHO).

With its environmental engineering consultation NJSEI has set up milestones in Water and Wastewater sector in India. The company’s *Wastewater Reuse and Recycle Project in Anjar, in Kutch District, Gujarat* proves the company’s technical expertise and apt consulting. The project has set unique and replicable example of resource recovery by producing treated wastewater suitable for industrial use instead of using fresh water from natural resources.

Another one of NJSEI’s distinguished projects is *Reclaimed Wastewater Reuse Project at Koradi, Nagpur, Maharashtra*. The growing water scarcity in Vidarbha, has added to water crisis of Maharashtra. However, through this first-of-its-kind project, the City of Nagpur is enjoying additional water supply from Pench River, which was previously earmarked as cooling water by MAHAGENCO for power generation. Through Dr Kelkar’s thought leadership under the WENEXA project of USAID, this reuse project was formulated in 2005 – 2006 to treat Nagpur City’s sewage to a water quality suitable for reuse as cooling water at Koradi Thermal Power Station. NJSEI’s involvement in designing, developing bid document, and PMC of advanced WWTP treatment technology processes, the project at Koradi treats 130 MLD of wastewater to be reused for Cooling tower application. The project has set a good working example of a circular economy and its benefits in India by selling high-quality reclaimed water to MSPGCL helping Nagpur Municipal Corporation earn Rs 15 crore per year.

Before moving further in the interview, Dr Kelkar shared the company’s involvement in the landmark project – ‘*Ganga Action Plan*.’ River Ganges holds utmost importance for Indians for its religious beliefs. This ambitious project aims to prevent water pollution further restoring its water quality to ‘bathing standards’ in Varanasi. Dr Kelkar further sheds light on Ganga Action Plan.



Dr Uday G. Kelkar
Managing Director and CEO

REWARDS AND RECOGNITIONS

- “Environmental Leadership Award” presented by the United States Asia Environmental Partnership Program as part of the USAID-Asia initiative, May 2010
- “Hall of Fame Award 2016” as one of the “50 Most Influential People in the Indian Water and Wastewater Industry 2016” at the Everything About Water, Annual Conference held in Delhi, August 2016
- Authored more than 150 papers/publication/presentations combined on various subjects dealing with advanced water and wastewater treatment processes, distribution system water quality, disinfection, sludge management, and recycle and reuse of Wastewater for indirect potable and non-potable applications.



NJSEI aims to become an **employer of choice** amongst the **talented and diversified professionals** by valuing its **manpower** and **mentoring** them under **top-notch technologists & professionals**



“Aiming at interception and diversion of sewage flow, it is intended to not only improve quality of Ganga water at Varanasi and downstream but also benefits the inhabitants and pilgrims, thus, contributing to improve the standard of living conditions and the economy.”

NJSEI has contributed to the Ganga Action Plan through the following services:

- Review the detailed designs prepared by contractors.
- Support during tendering process for prequalification, evaluation, opening of bids.
- Construction Supervision.
- Reporting environmental influences.
- Disbursement documentation and forecast.
- Review of current O & M procedures and advise improvements.
- Assistance in developing MIS system and operation plan for sustainable O & M
- Assisted in improving social component of project Community Toilet Complexes, Dhobi Ghat, and more.

The enigmatic expert

Good leaders influence the crowd to believe, act, and work with perseverance to meet the greater good. Dr Kelkar is well-versed with the essence of being strong leader. He entered the role of Managing Director and CEO with an experience of three decades in Water and Wastewater treatment projects, out of which he has spent 18 years on projects in India.

During these years, Dr Kelkar served as Managing Director, Business Development Manager, Program Manager, Project Manager, Process Engineer, and Team leader on various design and engineering projects and studies in water and sanitation sector in USA, Middle East, Sri Lanka, South East Asia, and India.

With an ambition to set examples and strive as a leader in Water and Wastewater Sector, Dr Kelkar made the most out of every opportunity that came his way. Along with improving his experience in the field, Dr Kelkar gained expertise in study, evaluation, and design of water and wastewater treatment processes. He further became well-versed with:

- Process chemistry Oxidation (conventional and advanced)
- Disinfection-physical/chemical
- Advance nutrient removal process (BNR)
- Application of membranes in wastewater (MBR and Tertiary filtration) processes
- Energy management
- Recycle and Reuse of domestic wastewater for non-potable application.
- Landfill leachate treatment
- Master planning
- Treatment techniques for the minimization, handling, and disposal of water and wastewater treatment plant residuals.

With great expertise comes great power, and in turn responsibilities. Dr Kelkar is diligently handling his responsibilities as Business and Project Developer in India simultaneously serving as senior technical expert on various water and wastewater projects of the parent company, NJS Co. Ltd, Japan. 