

Builders of Our Nation:**Deshabandu Dr. A.N.S. Kulasinghe**

Deshabandu Dr. Arumadura Nandasena Silva Kulasinghe (commonly known as ***Dr. A.N.S. Kulasinghe***) stands as one of the most towering and transformative figures in the modern history of Sri Lanka. As an eminent civil engineer, visionary inventor, and dedicated public servant, his contributions to the country's infrastructure earned him the rightful reputation of a premier nation builder. Operating during the mid-to-late 20th century—a critical era of post-independence development—Kulasinghe's brilliance lay not just in constructing physical structures, but in pioneering cost-effective, innovative engineering solutions that allowed a developing nation to achieve self-reliance.

Born in 1919 in Ja-Ela, Kulasinghe demonstrated exceptional academic capabilities early on, eventually securing his engineering credentials through London University external degrees. His



professional journey truly took flight at the **Colombo Port Commission**, where he confronted the immense challenges of maritime engineering. It was here that he introduced **pre-stressed concrete technology** to Sri Lanka, a revolutionary advancement that drastically minimized the use of structural steel and timber. By developing the "Kulasinghe-CPC prestressing system," he showcased an extraordinary ability to adapt global engineering principles to suit local economic constraints. This innovation dramatically lowered costs and accelerated construction timelines across the island.

Kulasinghe's legacy as a nation builder is immortalized in the critical institutions he founded and led. He was the driving force behind the creation of the **State Engineering Corporation (SEC)** in 1962, serving as its founder chairman. Under his stewardship, the SEC broke the monopoly of foreign construction firms, proving that Sri Lankan engineers and workers could execute

massive, complex infrastructure projects independently. He later served as the chairman of the **National Engineering Research and Development Centre (NERD)**, an institution dedicated to fostering indigenous technology and sustainable engineering practices for the masses.



The physical landscape of Sri Lanka bears his permanent imprint. Kulasinghe was central to iconic architectural and engineering marvels across the country. He played a monumental role in the planning and execution of the **Mahaweli Development Programme**, the largest multipurpose engineering project in Sri Lankan history, which revolutionized the nation's electricity generation and agricultural irrigation. His structural genius is also visible in religious and cultural landmarks. He engineered the awe-inspiring **Kalutara Bodhi Chaitya**, a hollow Buddha stupa built using a thin pre-stressed concrete shell, allowing visitors to walk inside the dome. He also designed the striking **Sambodhi Chaitya** at the Colombo harbor, which stands elevated on massive concrete arches, welcoming ships to the capital.

Beyond mega-structures, Kulasinghe was deeply committed to improving the everyday lives of ordinary citizens. Through NERD, he championed the development of low-cost housing technologies, fuel-efficient cooking stoves (like the Anagi

stove), and alternative energy sources. He firmly believed that engineering should serve humanity and lift people out of poverty. His dedication to local capacity building inspired generations of Sri Lankan engineers to think creatively and act patriotically.

In recognition of his unparalleled service, the Government of Sri Lanka conferred upon him the national honors of **Deshabandu** and **Vidya Jyothi**. Dr. A.N.S. Kulasinghe passed away in 2006, but his enduring legacy remains etched in the skylines, rivers, and institutions of the country. He was more than a structural engineer; he was a visionary patriot who gave a young nation the confidence to build its own future. Through his spirit of self-reliance, innovation, and public service, Dr. Kulasinghe truly cemented his place as a timeless architect of modern Sri Lanka.

Ven. Ñāṇasīha



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