

## INSPIRATION

# Noble inventor forges foundations of bold buildings to support charities

**M**ohan Vijay has a bold and breathtaking vision. The 74-year-old Canadian engineer, inventor, entrepreneur and philanthropist wants to construct a collection of buildings around the world that would rival the likes of the Taj Mahal, the Leaning Tower of Pisa and the Coliseum in Rome. "The next Wonder of the World," as he puts it.

The first one would be located in Ottawa. The second perhaps in the United States. And then others in major international cities.

Why does he want to do this? "To raise a steady flow of money for charity, especially those that benefit children," he says. "They would be occupancy buildings, in which companies or individuals would rent space and the profits would all go to charity."

The buildings Dr. Vijay envisions would be designed in the shape of a lotus flower, a symbol of great personal meaning to Dr. Vijay.

Born in Hospet, India, in 1937, Dr. Vijay remembers as a young boy his mother telling him to be like the lotus flower. "She said that when the lotus leaves are floating in a pond the water doesn't stick to them because they are hydrophobic. So in your life be as pure as a lotus, so that even if you are living in dirt you will be untouched by it."

Another youthful memory also informs his vision. As a student in Bombay in the late 1950s, he had to rise at five each morning to catch a subway to his college some 20 kilometres away. He didn't have time for breakfast so he purchased a bottle of milk at the end of his subway journey. "I would leave my empty bottle on a rack near where I bought it," he says. "I saw some young kids trying to lick the top of

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**Mohan Vijay,**  
Engineer, Inventor, Entrepreneur  
and Philanthropist

the bottle, they were that hungry. That made me very, very sad. I couldn't drink the milk anymore."

A gifted student, at age 23 Dr. Vijay won a scholarship to study in England, where he obtained a Master's in Nuclear Engineering. A few years later, he took a teaching job at the University of Manitoba, arriving on a frigid December day. During an eight-year stay in Winnipeg he earned a PhD, which helped him land a position at the National Research Council in Ottawa in 1975, where he worked for 23 years.

An inveterate inventor, Dr. Vijay believed a high-frequency forced pulsed water jet could be developed for use in industries such as aerospace to remove coatings from aircraft parts and equip-



A dedicated family man, inventor and philanthropist Mohan Vijay is pictured here with his wife Hari (front), daughters Sheela (left) and Sangeeta, son-in-law Stefan and grandchildren Samuel and Sasha. PHOTO: SUPPLIED

ment. In 1998, after retiring from the National Research Council, Dr. Vijay founded VLN Advanced Technologies Inc. with the mission of developing and commercializing his new waterjet technologies. Many years of rejection and a personal investment of more than \$400,000 to secure international patents resulted in a multimillion-dollar deal between his company, VLN Advanced Technologies Inc., and Pratt & Whitney US in April 2011. Pratt & Whitney, which designs, manufactures and services aircraft engines, is part of United Technologies Corporation.

"I could run away with the money and live a luxurious life in the Caribbean or some other place," he says. "But I don't want to. I want to help children around the world."

Why not just raise money for charity? Why the buildings? "You give a sum of money and then what? I want to create a source of income that sustains year after year."

Dr. Vijay has a board of directors that includes established members of the Ottawa legal, banking and business communities, who are helping him work on the incorporation of what he calls the VLN Reach Foundation. He does not, however, have many specifics in place as of yet for how to bring his vision to reality.

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*The establishment of the VLN Reach Foundation has been made possible through proceeds from a business transaction between VLN Advanced Technologies Inc. and Pratt & Whitney Military Aftermarket Services, Inc., a subsidiary of United Technologies Corporation.*

## BOARD MEMBERS LEND SUPPORT TO BUDDING CAUSE

Although Mohan Vijay's vision is in its early stages, he has attracted an impressive group of people to sit on the provisional board of the VLN Reach Foundation.

Among the current board members is Matthew Roy, a partner at Gowlings law firm in Ottawa, who has helped Dr. Vijay navigate the complex waters of the patent world, and Brian Griffin, manager of commercial banking at the National Bank in Ottawa.

"Mohan is a very driven person," says Mr. Griffin. "He has been unwavering in his belief that his company would succeed and that once it did he would give back to the less fortunate of the world."

Dr. Vijay's accountant of the past 20 years, Stuart Haslett, CA, acknowledges, as do other board members, that the lotus building "will be a costly and difficult endeavour." But he believes it can be accomplished. "With Mohan's motivation, perseverance and vision, it is achievable."

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A lotus flower-shaped building might sound far-fetched, but architectural masterpieces such as Singapore's ArtScience Museum (pictured above) have proved it can be done. Philanthropist Mohan Vijay hopes that architects and investors will share his passion for the lotus flower form and contribute to the design and development of a lotus-shaped building in Ottawa. Built on a grand scale that would earn it recognition as a Wonder of the World, Dr. Vijay envisions the building providing office space that would be leased by wealthy individuals and companies to generate net revenues to benefit charities.

PHOTOS: ISTOCKPHOTO.COM

## PROFILE

### Mohan Vijay

Mohan Vijay was no overnight success. "It has all worked out in the end," he says, "but there were many times I wondered if I would ever succeed. I am not the kind of person to give up, however. That's not who I am."

That is somewhat of an understatement. In a document he calls "The Hard Road to Success," Dr. Vijay details the many obstacles and setbacks he encountered over several decades as he tried to convince doubters at the National Research Council and then in the private sector that his forced pulsed water jet machine could be a boon to the aerospace and other industries.

"As one example, there are many parts on an aircraft, such as the landing gear, that are coated in chrome or other materials," he explains. "The coating wears off and has to be removed. Even if it doesn't wear, the parts have to be inspected for cracks and other faults. My invention allows a machine to do this at 10,000 psi or less by simply using water."

Traditionally, companies had to grind the chrome off or dip the parts in huge tanks of chemicals.

Dr. Vijay, who had formed a company called VLN Advanced Technologies Inc. back in 1989, had approached many large corporations, including Pratt & Whitney in 2003, to commercialize his invention, but the efforts never went anywhere. Despite what seemed like a hopeless cause, he never gave up. "I sold five condominiums, which I and my wife, Dr. Hari Vijay, owned (two in Florida purchased for retirement), my retirement savings, taking line of credit on our home, cashing all the bonds, my wife's salary and continuing to borrow heavily from credit cards."

When Pratt came back to the table in 2011, Dr. Vijay's life, from a financial standpoint, changed dramatically. It allowed him to begin speaking out loud about a dream he had held since he was a young man. "I could now afford to see if my lotus building vision could actually come true," he says.

At 74, Mr. Vijay has no intention of retiring from his business life. "I didn't sell my know-how on low-frequency pulsed water jet generated by electrodischarge technique," he says. "It can be used to diffuse landmines, of which there are some 100 million around the world. I'm sure it can."

# VISION

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