Zac Toh serves as the head of GWS (Green Wall System) Living Art, a part of family business Chop Ching Hin Pte Ltd that specialises in urban green technology. He deals closely with green technologies, bringing landscaping into modern world buildings and skyscrapers.

Growing up, he spent his school holidays in his father’s plant nurseries plucking weeds, propagating plants and driving forklifts and automated farming machinery. Instead of going to university where he had a placing, he chose to take on the role as Chop Ching Hin’s GWS Team head. He continues to improve and push the limits of urban greenery and has designed and engineered many green walls in residential and commercial projects – the most recent being Country Garden at Danga Bay, Iskandar Malaysia.

THE MODERN FARMER

Seeing himself as a modern farmer, Zac strives to sustainably integrate greenery into modern structures. He firmly believes in developing sustainable systems and that the cost of the system and its upkeep should not exceed the real benefits of going green.

One key innovation perpetuated by Zac is a sustainable, pre-situ mat for green roofs, the first pre-grown mat green roof system in the world. Having used conventional systems prior to this new innovation, Zac found these older systems to be lacking in certain aspects. After spending two years working with greenery specialists in Europe, Zac developed the revolutionary product that is able to cut installation time by five times owing to its pre-fabricated nature. This mat system also ensures project success as the room for error becomes very minimal, and the system is safer for workers as they are much lighter than conventional methods of greening roofs. Most importantly, the green roof pre-situ mat system is sustainable, reducing the frequency of maintenance visits from monthly to quarterly. This system has since been installed on many different projects ranging from public housing to a childcare centre.

A recent project undertaken by Zac and his team is the internal green wall at Changi Airport Terminal 3, whereby internal addition and alteration works to the green wall was done. For this green wall to survive, special lighting had to be integrated into the installation. The plants also required a special combination of colour rendition index, plant growth and creation of the right atmosphere to thrive. Zac worked with specialists from Japan and Germany to create the best suitable light for the indoor space that not only works but is also sustainable due to its low energy usage.

Zac regularly shares his expertise and experience with the industry through speaking engagements. He is also very passionate about greening the next generation, devoting time and effort to educate students on the true benefits of greenery.