Tipu Sultan Merkez (TSM) is a privately-initiated school and engineering and design, a traditional building technology has been upgraded with effective low-tech measures. Bamboo is used as an example demonstrating the potential in construction of this fast-growing and widely available material, which also counters deforestation. The propagation of the new construction methods amongst the local population aids the establishment of local businesses and improves the economic situation in this rural area. All materials are locally sourced and can be processed with low energy requirements. The new construction approach shows the rural population an affordable, high quality and durable alternative compared to widely-used, but higher-cost and less environmentally-compatible construction materials. The new earth and bamboo frame structures will be constructed and then infilled with mud walls to create a comfortable indoor environment.

The ground floor will be built using massive 60cm-thick cob-walls (a mixture of earth and straw). For this technique, earth is piled up on the brick foundation without using formwork. The walls are left to dry, and then the excess is trimmed off with a spade until the wall is of the desired thickness. This project will draw upon local earthen building traditions and resident artisan's abilities to update the existing method, resulting in a more solid, durable construction. Among other modifications, an underground brick foundation and a horizontal damp-proof course will protect the earthworms against rising damp and splashing rainwater.

As deforestation is an important issue in the region, the simple construction method will incorporate bamboo in order to reduce wood consumption. The first-floor walls will be built using the wall-and-stud method. Light bamboo frame structures will be constructed and then infilled with earth. The ceilings and roofs will be constructed using a system of triple-layer bamboo beams joined with simple knots and nail construction interwoven with laja of earth. The bamboo will be treated with borax (sodium borate), a natural salt which protects against parasite infestations.

The main ideas of the project are to promote local traditions, reduce reliance on fossil fuels and expensive products from outside the region, and develop natural material and economic cycles. The school is a pilot project for a transformed building method, one which can be adapted for different uses. A private two-level house has also been designed and will be built as a parallel pilot project on the university campus in Lahore.