Physicists distinguish metals that conduct electricity well from Bio-based materials, for example on the basis of natural fibers and biopolymers, are a highly promising approach for sustainable architecture of the future and innovative building designs. Their research is the aim off the BioMat Group, set up two years ago at the Institute of Building Structures and Structural Design (ITKE) at the University of Stuttgart under the leadership of the junior professor Hanaa Dahy. On 15th August the group will be celebrating the opening of its first research pavilion, making the visions visible.

Time: August 15th 2018, 6 pm

Venue: Campus Stuttgart Stadtmitte (City Center), open space between building Keplerstraße 17 and “Katharinen” hospital.

From 5.30 pm representatives of the media are cordially invited to a preliminary inspection under the leadership of junior professor Dahy. Registrations requested: h.dahy@itke.uni-stuttgart.de

The pavilion comprises a double-curved segment bowl made of light, for its part curved wooden and biocomposite elements that is supported by three intersecting wooden beams. All elements can subsequently be separated and reused in order to form various other designs and constellations. The integrated geometry resembles a 3D fabric in which the curved elements are joined with knots in all directions in the room. This enables new aesthetic architectural features of the future to be expressed that were made possible through the use of digital manufacturing technologies and data flow management.
The work is the result of the cooperation between experienced architects, around 40 students of architecture as well as several institutes from the University of Stuttgart, including the Institute of Structural Design (Professor Ulrike Kuhlmann) and the Institute of Engineering Geodesy (Professor Volker Schwieger). On an international level Professor Dahy cooperated with, among others, the Technical University of Eindhoven in the Netherlands (Department of Built Environment, Professor Patrick Teuffel). Support came from the German Expert Agency for Renewable Resources (FNR) in the Federal Ministry of Food and Agriculture (BMEL) as well as from Baden-Württemberg Foundation and some industrial grants.

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