

NEW LAYOUT!

INNOVUM

February 2016

Inside



Innovum Christmasgift

The Christmasdinner

p.11

**Sound
Engineering
presents:
Jam Session
*p.19***

**Fontys representation
at GLOW Eindhoven
*p.13***



**What is the best toilet
of Stratumseind? *p.8***



Meet the new board! *p.4*

**Premium
tips on
'Blikje
Blaffen'
*p.26***



**From student to teacher,
Marloes Robers! *p.18***





Engineering at GLOW

Author: Geert Langereis

Just before summer, an EXPO project qualified for participation at the GLOW-NEXT festival 2015 in Eindhoven. What happened afterwards appeared to be new for Fontys Engineering in two ways. First of all, the design of an artistic installation requires a mind-set where the experience is more important than the authentic product development, which is not in the genes of teachers and students. Next, finalizing the project in time for the GLOW-NEXT exhibition in November 2015 required the collaboration of our workshops and colleagues, even outside the regular educational boundaries. In the end, we had an amazing exposure for our work and Fontys Engineering in general. It is the type of concept design we want to continue in future.

It started in March 2015 when a former colleague of mine, Rombout Frieling, appeared to be the curator of GLOW-NEXT [1]. We worked together at the department of Industrial Design of the TU/e on several student projects. He created the opportunity to bring local institutes, like Fontys, to the festival. My original idea was to play with the effect of a fountain ("Fontys"!) under stroboscopic illumination. An EXPO project was started in May and was staffed by Bas Janssen (M), Malou van den Eijden (W), Stef den Hond (W), Stijn Maas (M), Floris-Jan van den Hoek (E), Bart Tijmensens (E) and Jim van der Heiden (E). Already in an early phase, Rombout proposed to move from a water fountain to a "solid fountain". With this, he was



referring to the concept of John Edmark, who works at Stanford university [2]. John proposed solids having repetitive patterns that can be turned into motion by stroboscopic illumination when rotated. Although these shapes were known and well described [3], they were never scaled up to make them live available for a large audience like GLOW. The technical challenges were in making the solids as large as possible, precision of high speed rotation, stroboscopic illumination timing and bringing the shapes to visible locations – upside down above the audience.

Just before the summer holidays, we heard the project qualified for GLOW. However, this left only a few months for arranging budget, 3D prints, the electronics and the drive chain. If you realize that most students went on their internship, you can imagine the problem.

Fortunately, the students were able to

arrange time besides their educational commitments. In addition, Stefan Ketelaars (E) and our colleague Herbert Veenstra were added to the team. The students arranged STHO subsidy which complemented the internal budget from the Connecting Through Technology program. In addition, the Objexlab with Eric Rutjens and the contract students committed on printing the 3D shapes. Support on the drive chain and printing the LED mountings came from the Store Room Engineering. Advice on the chemical welding of the printed shapes came from a former colleague of ours, Ton Stox. It was amazing to see how a whole institute can team up to make things work. As a result, the object called "Blooms" [4] was successfully exposed on the festival from 7 until 14 November 2015.

I think this type of designing for concepts, art and feasibility, which requires a totally different approach and paradigm, is typical for the region of Eindhoven and for the professional jobs some students may get. Therefore, I am convinced we must include it in our educational system. The first steps are already made: you will notice more art projects for the STRP festival and Dutch Design Week. You will also see more interesting collaborations with our Sound Engineering team.

References

- [1] <http://www.gloweindhoven.nl>
- [2] <https://web.stanford.edu/~edmark>
- [3] <http://makezine.com/2015/02/15/nature-inspired-animated-3d-printed-sculptures/>
- [4] <http://www.gloweindhoven.nl/en/glow-projects/glow-next/blooms>

