



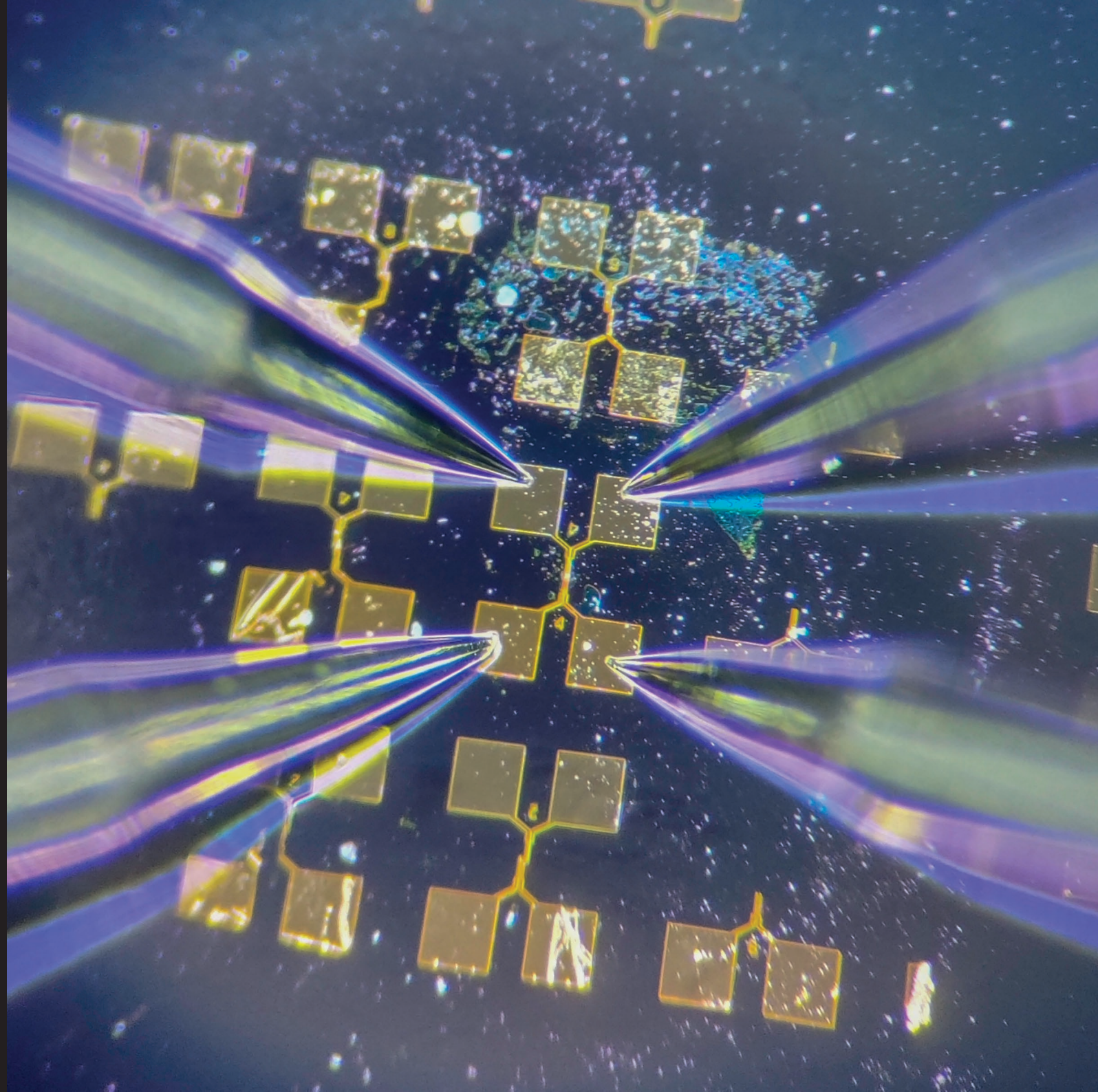
POP

PIXELS OF POLYU

Research and Innovation Office of PolyU initiated the

Pixels of PolyU (POP) Photo Competition

in 2023 to encourage the PolyU community to draw inspiration from various aspects of STEAM (Science, Technology, Engineering, Arts, Mathematics). The competition attracts over 250 photo submissions capturing the STEAM elements on the PolyU campus.



Four-probe Test

The electronic device was measured by four probes with Keithley 4200a-scs semiconductor parameter analyzer in the UMF cleanroom.

XIAO YIPING

Department of Applied Physics

Pixels of PolyU Photo Competition

Champion



Parallel World

一個濕漉漉的清晨，天地倒置，自成一個世界。

CHENG HAOQI

Department of Applied Biology and Chemical Technology

Pixels of PolyU Photo Competition

1st Runner up



Aqualoop

本照片拍攝於服裝及紡織學院針織實驗室，顯示的是博士研究課題中的服裝設計成果之一。表達了設計研究成果建立在PolyU強大的工程及科學背景之上。

YAN YISHU

School of Fashion and Textiles

Pixels of PolyU Photo Competition

1st Runner up



倒影與交織

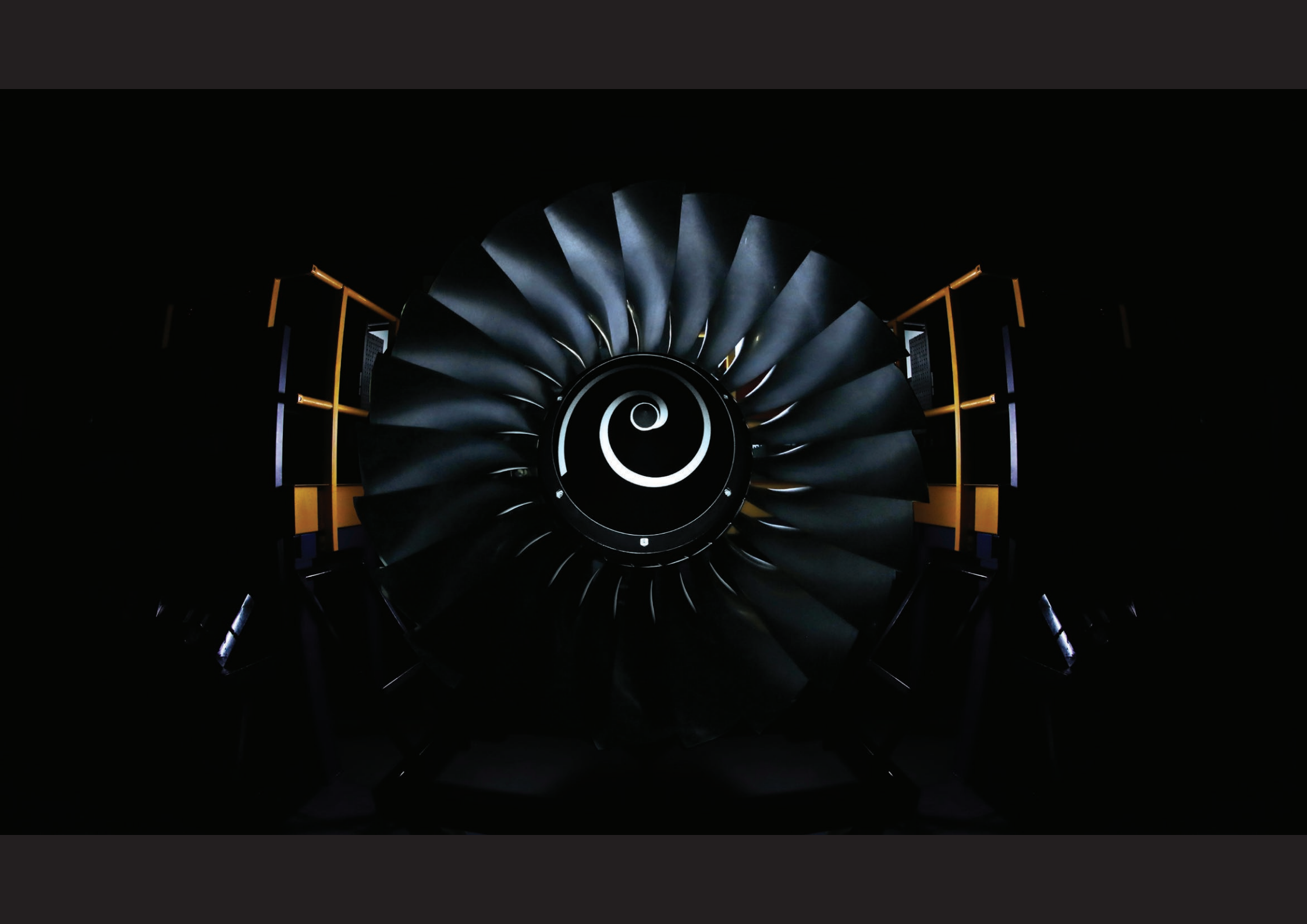
夕陽映照，讓理大璀璨耀眼的特色紅磚建築在通往Z座的天橋的玻璃欄杆上，留下了熠熠生輝的倒影。Y座李兆基樓、V座賽馬會創新樓和Z座樓在倒影裏交織，匯聚了科研、工程及設計藝術領域的元素，為理大師生和研究人員提供了探索創意科技的機遇以及發掘無限潛能的地方，繼續往未來綻放光芒、發光發熱。

KUNG WING SZE

School of Design

Pixels of PolyU Photo Competition

2nd Runner up



Balance and Stability

Have you ever wondered why aircraft have such a large fan at the front of the engine? The answer is quite obvious -- it spins at a very high speed and generates thrust to enter the engine. Although the fan blades are mainly made of titanium alloy, different damages will still occur after long use or certain accidents, and that's where aviation MRO (Maintenance, Repair, and Overhaul) comes into the game.

The photograph was taken inside the Aviation Services Research Centre (ASRC) which is located in BlockX of The Hong Kong Polytechnic University (PolyU). ASRC is an applied research center established by PolyU in combination with the Boeing Company. The primary aim of ASRC is to develop new or improved aviation service technologies applicable to the MRO industry and beyond.

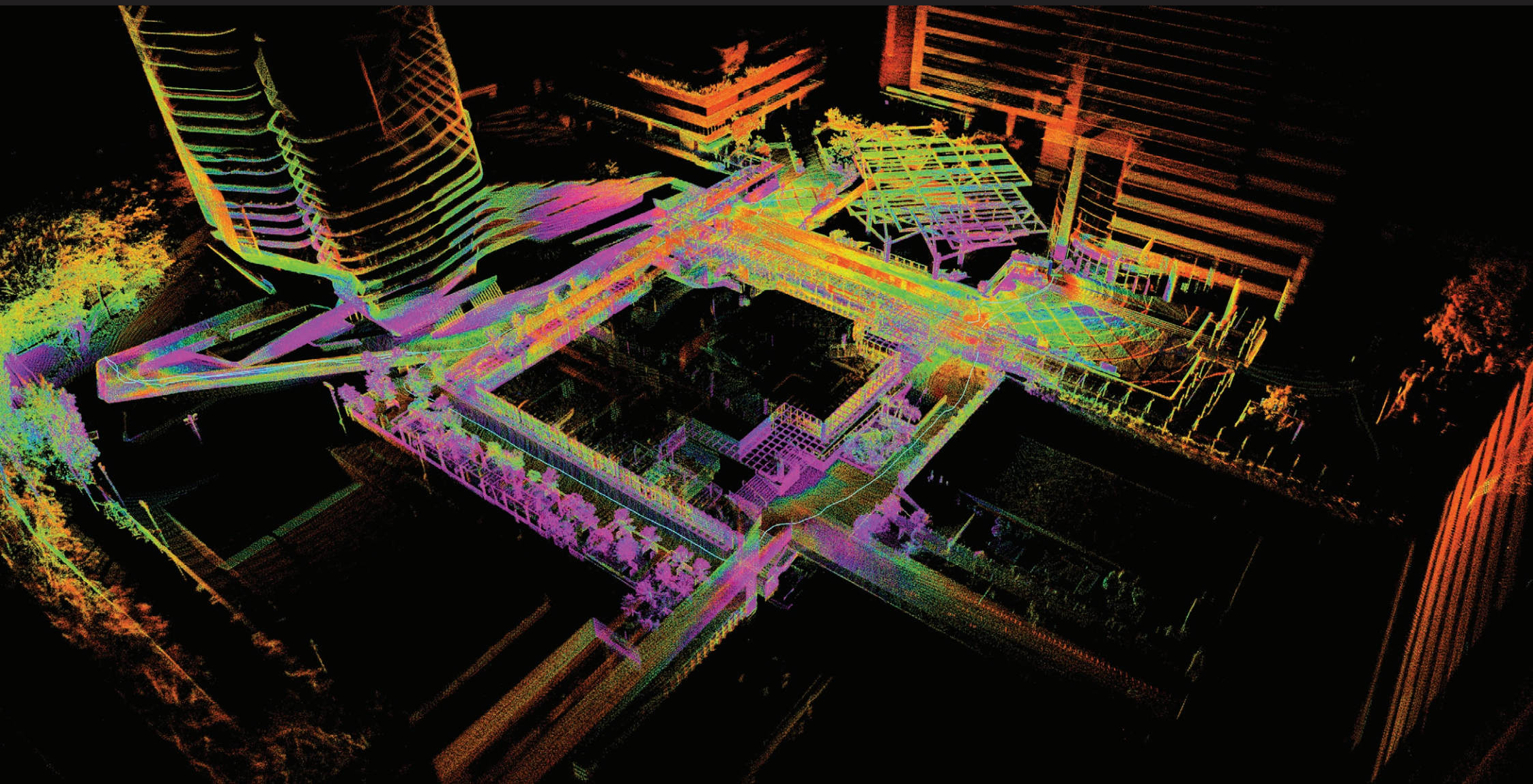
Lighting and structure techniques play important roles while taking the photograph. Light sources were added at the back and at the bottom in order to form a high contrast to the outline of the fan blade. The image is also presented in a symmetric structure. Balance and stability are what the image pursues, which is also what we looking for in aircraft maintenance.

CHAN TAN NI, DANIEL

Aviation Services Research Centre

Pixels of PolyU Photo Competition

2nd Runner up



PolyU in LiDAR's eyes

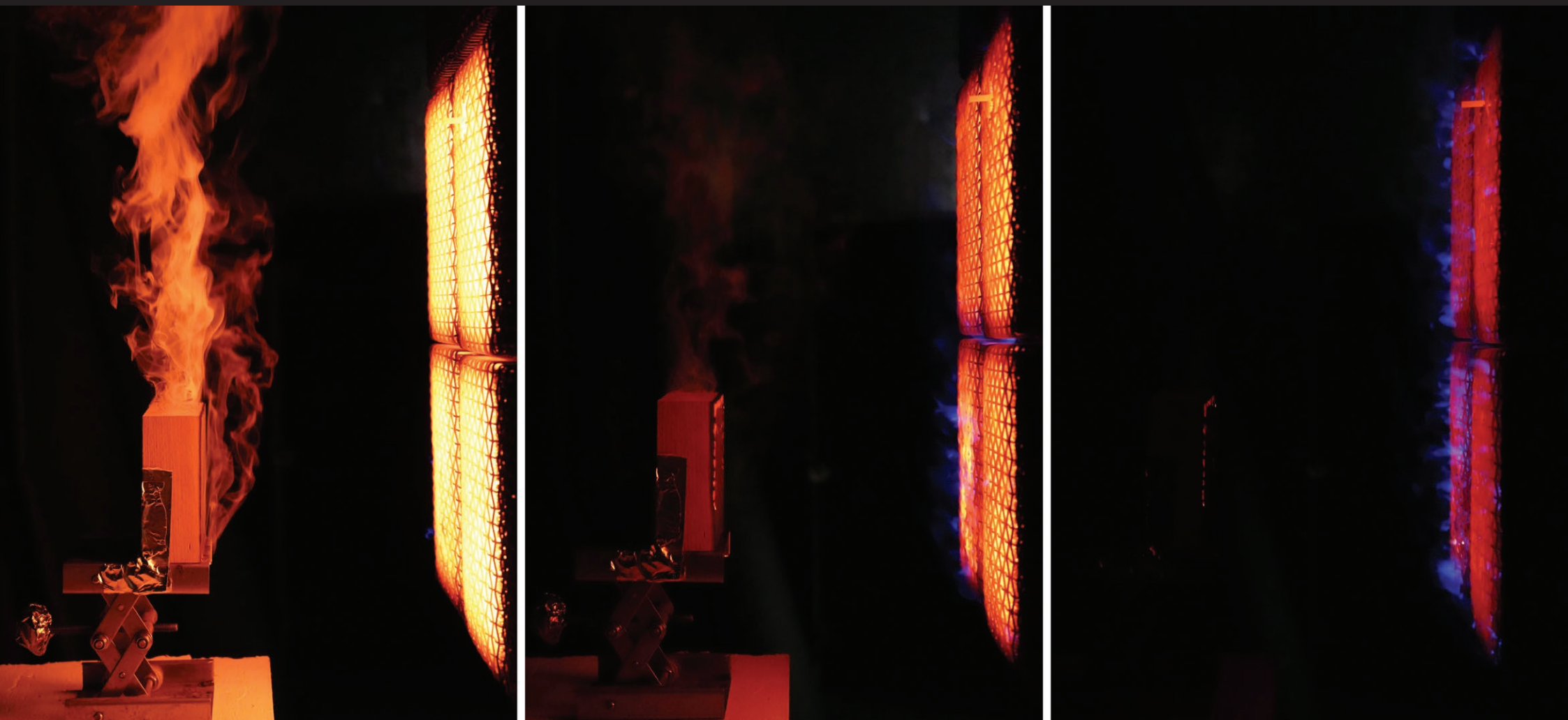
This is a snapshot of a point cloud map of the central PolyU campus. We use a LiDAR sensor to capture the data and a SLAM algorithm to reconstruct this detailed and precise map.

RUAN JIANYUAN

Department of Mechanical Engineering

Pixels of PolyU Photo Competition

2nd Runner up



Scorch

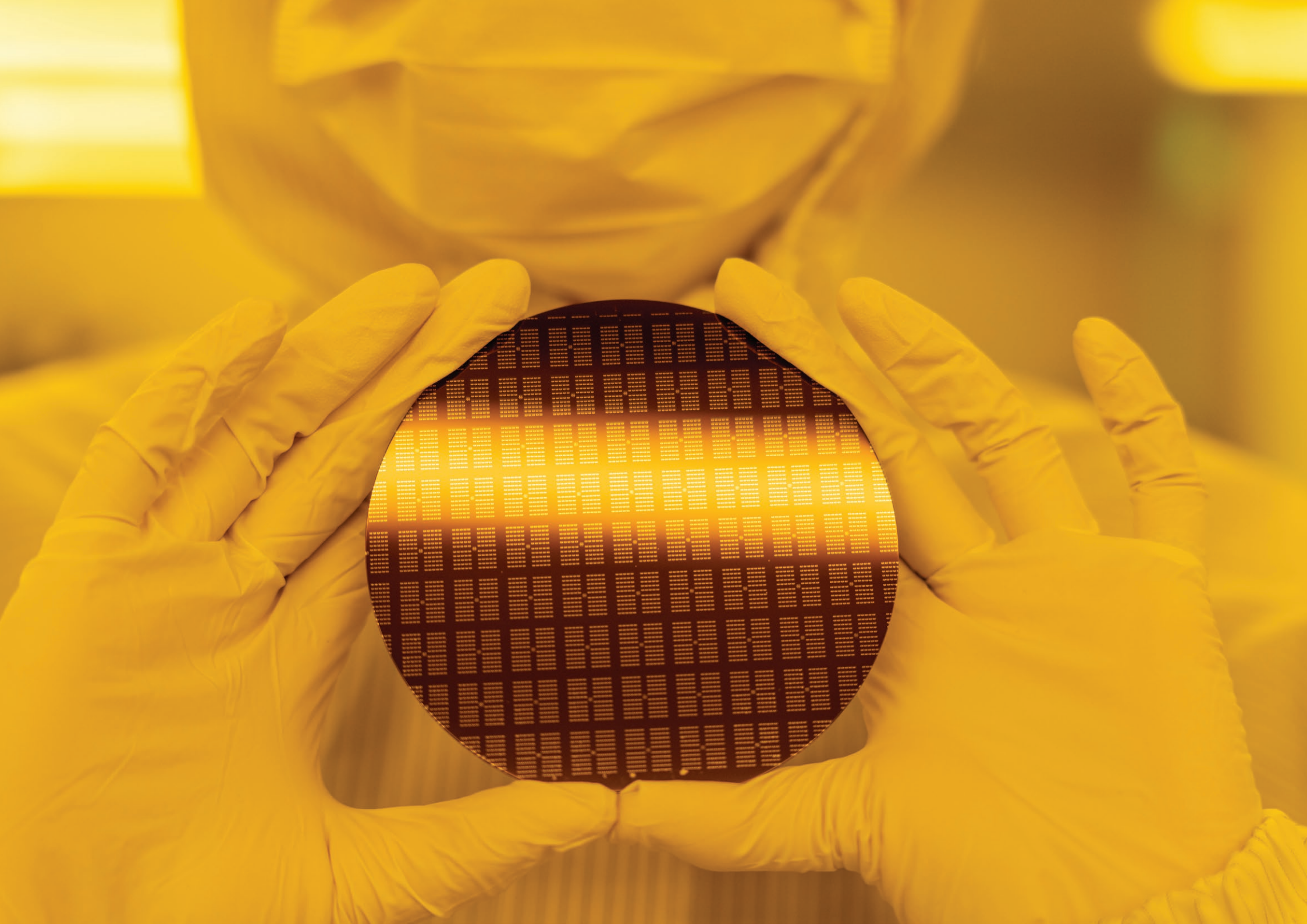
Using heat radiation to ignite a wooden block.

WANG MENG

Department of Building Environment and Energy Engineering

Pixels of PolyU Photo Competition

STEAM Award - Science



Gold electrodes on the SiO₂ wafer

After a serial of micro-fabrication process, eg. photolithography, electron beam evaporation, lift-off, etc., gold electrodes were successfully patterned on the SiO₂ wafer.

CHEN ZILING

Department of Applied Physics

Pixels of PolyU Photo Competition

STEAM Award - Technology



Walking with exoneuromusculoskeleton

A hybrid system combining the soft pneumatic muscle, the rigid exoskeletal techniques, NMES, and vibrotactile feedback, was designed for gait restoration of foot drop and foot inversion poststroke, namely exoneuromusculoskeleton with balance sensing feedback. It showed that stroke patients could walk with the system around the campus.

QING WANYI

Department of Biomedical Engineering

Pixels of PolyU Photo Competition

STEAM Award - Engineering



This is Where We Shine

PolyU always cares about what students need and provides them with resources and platforms, even unacademically. This is a moment captured during an event by the PolyU Cartoon Art Society at the Chiang Chen Studio Theatre, a performing place with a variety of advanced equipment. The shot is infused with bright light, multiple colours, and most importantly, a magnificent stage that provides space for students to unleash their unlimited imaginations and talents. It is easy to miss out on the hidden talents on campus, as they may have no clue about places to show, and this is why revealing platforms for performing is indispensable. The photo, full of energising and fascinating elements, acts as a guiding light to seek out potential students.

CHAN PAK HEI

Department of Electrical and Electronic Engineering

Pixels of PolyU Photo Competition

STEAM Award - Arts



Immersive Alchemy: Where Dreams Take Flight

Immersive Alchemy: Where Dreams Take Flight” perfectly encapsulates the fusion of innovation and imaginations fostered within the realm of STEAM. In this captivating image, the Cockpit-sonic A320 FTD Flight Simulator becomes a mystical laboratory, where technology flourishes, and dreams take form. The title alludes to the symbiotic relationship between science, technology, engineering, art, and mathematics, showcasing their transformative power when united.

Within this breathtaking composition, viewers are transported to a world where the boundaries between reality and simulation blur. The vibrant hues and meticulous details emphasize the interplay of light and shadow, evoking an otherworldly allure. You are invited to witness the convergence of cutting-edge technology and human creativity, as the A320 FTD Flight Simulator reveals a captivating tableau of possibility. Step into this immersive realm where fantasies are born and witness the alchemical blend of innovation and artistry that captivates the imaginations of countless souls!

SEYED AHAMED REFAYEE MARJAN

Department of Civil and Environmental Engineering

Pixels of PolyU Photo Competition

STEAM Award - Mathematics



取之有道

先有精心的安排，才有順利的成果

NG SHUI WING

School of Fashion and Textiles

Pixels of PolyU Photo Competition

Public Vote Award



上到至高處， 所有的路都指向了光明

從3樓一級一級向上到至高處，眼前終沒有什麼向上的臺階了，已經不在有路，所有的路所有的線條都指向了光明的穹頂。我彷彿在設計院的樓裡登上了一座山峰，而感受到了一種一覽眾山小的滋味，這也是我所期盼的一種終極人生狀態，希望我這一生有機會也能如是登上設計院的頂樓。

CHENG JIALE

Department of Electrical and Electronic Engineering

Pixels of PolyU Photo Competition

Public Vote Award



Radiance in Motion: Exploring the Aesthetics of PolyU Architecture

Located near Block W of the Polytechnic University of Hong Kong, this stunning photograph captures the unique combination of architectural engineering, design, and the interplay of light and shadow. The image provides two distinct visual experiences - one from looking up and the other from looking down - both of which showcase the beauty of geometric art. The use of glass and light in the building's design creates a unique rainbow visual sensation, enhancing the overall aesthetic appeal. This corner of the campus exemplifies the rigorous and dynamic nature of the PolyU's engineering and architectural art, showcasing its mastery of symmetry, geometry, and the interplay of light and shadow.

LIU SHUHUA, EVA

Research Centre for Chinese Medicine Innovation

Pixels of PolyU Photo Competition

Public Vote Award

Stay tuned with our research updates:



Research and Innovation Office (RIO)

The Hong Kong Polytechnic University

E: rio.general@polyu.edu.hk

W: www.polyu.edu.hk/rio