CHIPS.

Newsletter
October 2020

Stand stuff, not a vehicle.

unknown

CEO's Note

Dear Reader,

So now it has gotten me too, I was too close to the coronavirus. One measure that the Federal Office of Public Health is taking is quarantine. This is when you were with someone who tested positive for Covid-19 for more than 15 minutes without protection, i.e. without a mask or other barrier. That happened to me, which is why I was ordered to a state-mandated 10-day quarantine.

Source: unknown

Ok, I really don't want to infect anyone if the virus has actually struck me. Over the past 30 days, around 4,000 people have been infected every day in Switzerland. If each of these people was in unprotected contact with, say, five people until the infection was detected - which is rather a low value - this would be 600,000 people who should be, were or are still in quarantine in the last 30 days, according to Adam Riese. I think Switzerland is standing still just because of the quarantine measures. There is therefore no longer any need for a lockdown.

It is a difficult time and decisions about what to do are not easy to make. Especially because the assessment of the situation and the effects is not easy and opinions other than from the state are no longer permitted. These are branded as conspiracy theories and the promoters are nailed to the wall.

To put it in a dedicated way: Other opinions that deviate from the state decreed, for example the statement by the top Swiss epidemiologist Daniel Koch in March of this year that masks are no good, is a crime against the gospel of official Switzerland and the do-gooders in our mass (State infected) media. And it's known that the ten days quarantine of travelers coming home from summer vacation was useless in the fight against the virus. The Swiss government simply wanted do make people sad to avoid traveling. Where has the democracy of freedom of expression gone?

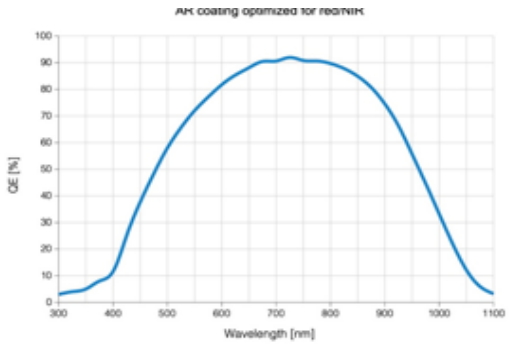
Beat De Coi

PS: Hope I survive the upcoming shit-storm. It's probably gonna be more dangerous than the virus itself...

TOF system challenges

The TOF imager is the heart of the TOF camera. The key issue is the sensitivity. The higher the sensitivity, the lower the required illumination power. And thus, the longer the operating range without violating the eye safety standards. ESPROS TOF imagers provide the highest sensitivity in their field due to the unmatched quantum efficiency (QE) in the near infrared wavelength domain.

Another aspect is ambient light suppression. The photons of the modulated light compete with the photons from the sun. It's a massive competition. Typically few photons from the illumination are reflected from the object, but large amounts of photons from the sun are arriving on the imager. The separation between the two sources is challenging. One part can be done by wavelength filtering. But even then, distance measurement is not possible with a powerful ambient light suppression technology. ESPROS TOF imagers have a built in Ambient light suppression (ABS). Due to the unique



Quantum efficiency of ESPROS TOF imagers

CCD/CMOS technology, ambient light is subtracted in the charge domain from the modulated signal. The full well capacity of the TOF pixel is 10 Million electrons, whereas the sensitivity starts at several hundred electrons. The result is an outstanding outdoor performance.

Federico Montagni; Vice President R&D Semiconductor

What are your responsibilities at ESPROS?
As a VP R&D semiconductor I hold the responsibilities around IC-design, technology development and maintenance. My team is located in Shanghai / China and Sargans / Switzerland, we are involved in activities ranging from semiconductor technology development and maintenance up to ASIC analog and digital design for internal as well for external customers.

How long have you been working with ESPROS?
I am with ESPROS for one year now.

Where do you come from?
I am a so called „secondo": born in Switzerland from Italian Immigrants. I grew up in Zurich countryside, studied in Zurich and Rapperswil and currently live with my Family, 3 cats, 12 turtles in a little village called „Dorf" north of Winterthur.

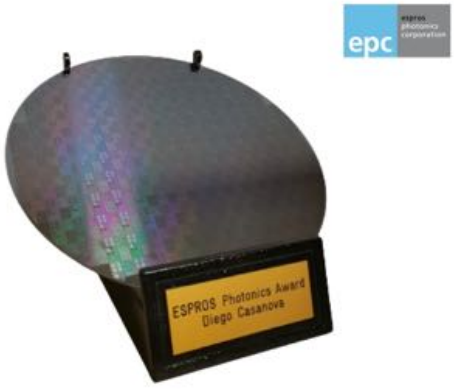
What do you like about your job and working for ESPROS?
I am, and always was, excited working on cutting-edge technologies which brings advantages in every one lives. Before starting at Espros I already had close to 20 years semiconductor experience interrupted only by few years engagements in industrial Sensor development. I am so happy to have the chance to entrusted with this engagement at Espros where optical sensors on semiconductors enables futuristic products in various applications.

Can you tell us about your hobbies?
I do enjoy live: spending time with my family, sometimes on small hiking tours, during holidays in remote areas or just chilling at home in Dorf or Florence. As I am a Ducati enthusiast I love riding them (I own 4 bikes) and never miss to enjoy the Grand Prix race in Mugello.

This year's ESPROS Photonics Award went to two graduate

The year 2020 has been unique for many reasons that also applies to this year's ESPROS Phonics Award which for the first time went to two graduates who achieved almost identical scores of 5.71 and 5.70, out of possible 6.0! ESPROS congratulates both Maurus Fritsche and Diego Casanova on their outstanding achievements!

COVID19 measures meant that of the total of 414 graduates across all disciplines at Grisons University of Applied Sciences who celebrated their graduation in September did so not at three big events as would normally be the case, but instead spread across 13 smaller functions. However, this could not detract from their excellent individual achievements.



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