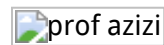


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English News

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## INOR ESTABLISHES COLLABORATION TO DEVELOP FUTURE TECHNOLOGY



PENANG, 22 August 2015 – The Institute of Nano Optoelectronics Research and Technology (INOR) which was established since January 1, 2015 has been involved in many collaborations with various parties in advancing the research on optoelectronics to develop technologies for the future.

This includes establishing joint researches with the University of California Santa Barbara (UCSB) through Nobel Laureate winner Professor Dr. Shuji Nakamura and also involving Collaborative Research in Engineering, Science & Technology (CREST) USM, bringing together “blue, green and white light emitting diode (LED)” for the development of LED technology in the country.

According to the Director of INOR, Professor Dr. Kamarulazizi Ibrahim, optoelectronics are devices which are one of Malaysia’s main exports, better known to the general public as LED or Light Emitting Diode, which comes in blue and is difficult to source.

“INOR is a pioneer in this effort and has closely collaborated with Nakamura long before he was awarded the Nobel Laureate last year,” said Kamarulazizi.

Explaining further, Kamarulazizi said that what is commonly used would be the red LED, but in using the blue LED, it could store four times as many information compared to what is previously achieved, not to mention that it also has a compatible wavelength.

Kamarulazizi said, other than being comparative to the colour white, blue-coloured LED too could replace fluorescent lights and reduce the energy consumption as this LED uses very low amounts of energy but at the same time able to last for a longer time as compared to fluorescent lights.

“INOR is exploring the field of optoelectronics at the global level through UCSB, which include collaborations in the development of LED and laser which could give the USM name a boost at the world stage in areas of optoelectronics and contribute to the economic development of the country in the future,” said Kamarulazizi.

He further added, researchers at INOR too are trying to utilise better materials and processes from what is currently available with the cooperation from Professor Nakamura, who is also involved in the CREST USM, using the basic and applicable principles to develop products which can be used not only by the rich countries, but also by those at the lower rungs of the world economic strata.

“It was the concern for the less fortunate groups being the noble intention and one of the main factors which led Professor Nakamura to continue working together with INOR on the study, utilising Indium Gallium Nitride, a new material and technology used in producing white light to facilitate the ease of use in blue LED,” said Kamarulazizi.

INOR receives funding from the government of Malaysia through the Economic Planning Unit (EPU), Prime Minister's Department amounting to RM75 million to develop this study within five years with Professor Nakamura.

INOR initially began as a laboratory known as "Nur", meaning light in Arabic in 2000 before it was upgraded following the approval from the Ministry of Education Malaysia (KPM) in December 2014, with the Senate and the University Board of Governors (LGU) had given prior approval, and becoming fully operational on January 1, 2015.

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