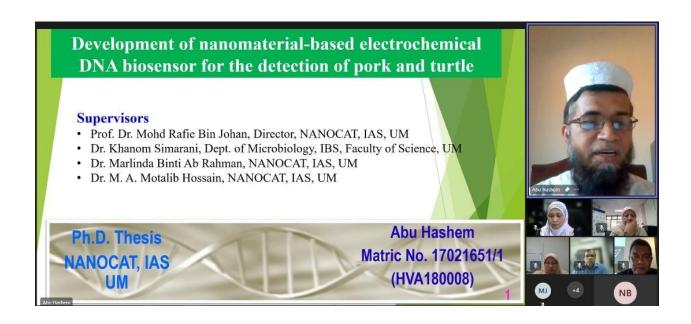
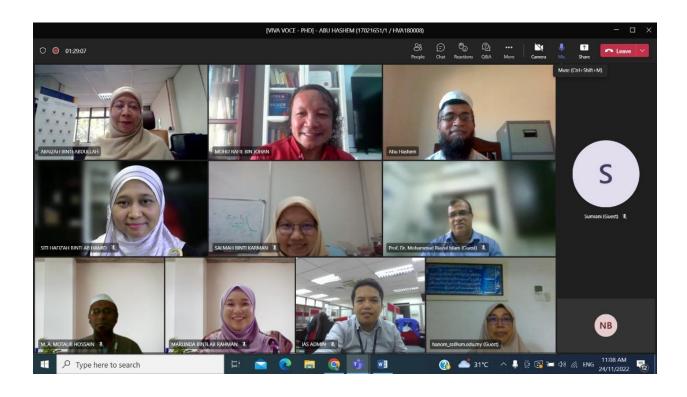
Congratulation, Mr. Abu Hashem for receiving

We, the National Institute of Biotechnology (NIB) family, are very delighted and proud to announce that Mr. Abu Hashem, Principal Scientific Officer and Head of the Microbial Technology Division of NIB, has received his PhD (with distinction) in Nanobiotechnology from one of the top 100 ranked universities, the University of Malaya (UM) (QS world university rank 66). Congratulations! to Dr. Abu Hashem for being awarded the degree of Doctor of Philosophy (PhD) with distinction. Dr. Hashem carried out his thesis at the Nanotechnology and Catalysis Research Centre, Institute for Advanced Studies, University of Malaya. Dr. Hashem conducted his PhD study on deputation from NIB and with support from a prestigious scholarship from the Bangabandhu Science and Technology Fellowship Trust, under the Ministry of Science and Technology, the Government of the People's Republic of Bangladesh. He started his PhD journey in September 2018, submitted his thesis in June 2022, had his final defence on November 24, 2022, and the senate approved his degree on December 22, 2022.

The title of his PhD project is "Development of Nanomaterial-Based Electrochemical DNA Biosensor for the Detection of Porcine and Turtle Species." He has developed a nanocomposite-based electrochemical DNA biosensor using bioinformatics, molecular biology, and nanoparticles. This biosensor can distinguish targeted species (pig and turtle) from non-target species based on electrochemical signal changes of Methylene Blue after hybridization of the probe of the biosensor with the target DNA. This is a unique technique in the biosensing arena. His developed nanobiosensor might be applied as halal authentication tools after commercial adaptation. During his PhD study, Dr. Hashem published 11 research and review articles in peer-reviewed journals with high impact factors (such as IF 14.910, 14.908, 7.721, etc), 4 chapters in books with different prestigious publishers (Academic Press, Springer Nature, IOP), and participated in 6 international conferences. Dr. Hashem received three international awards related to his PhD topic.

We, the NIB family, are very proud of Dr. Hashem for being with us and would like to wish him a further great scientific career and achievements.







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23 DECEMBER 2022

ABU HASHEM
NANOTECHNOLOGY AND CATALYSIS RESEARCH CENTRE
INSTITUTE FOR ADVANCED STUDIES
50603 UNIVERSITI MALAYA
KUALA LUMPUR

Dear Sir/Madam,

Candidature for Doctor of Philosophy

We are pleased to inform you that the University Senate on 22 December 2022 has agreed that the degree of Doctor of Philosophy be conferred on you. The Senate has also agreed to award you Thesis with Distinction and this will only display on your academic transcript.

Please note your name on your degree scroll will be as per your identity card or most recent passport. If you have officially changed your name, please inform the Admissions and Registration Section by submitting the Request for Change of Name form and relevant official supporting documents within one (1) week of the date of this letter. Any request received after the stipulated period shall not be entertained.

Do log on to https://umconvo.um.edu.my from time to time to get the latest updates on the upcoming convocation ceremony.

On behalf of the University, I would like to congratulate you for successfully completing your studies and I wish you all the best in your future endeavors.

Yours sincerely,

Norazwani Binti Mohamad Yusop

Assistant Registrar for Registrar

c.c. Dean, Institute For Advanced Studies

Supervisor: Prof. Dr. Mohd Rafie Bin Johan - Institute For Advance Studies

Dr. M. A. Motalib Hossain - Institute For Advance Studies Dr. Marlinda Binti Ab Rahman - Institute For Advance Studies Dr. Khanom Binti Simarani - Institute Of Biological Sciences

Chief Librarian, Library
Head, Student Health Clinic
Director of Security's Office
Students & College Financial Management Division, Bursar's Office
Admission & Registration Section, AASC
International Student Services Unit. AASC