



## Che Husna Azhari. PhD. CEng. PTech

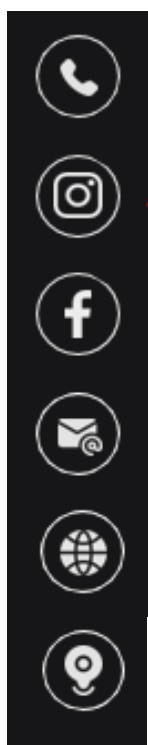
Emeritus Professor and Company  
Director

Dr Che Husna Azhari is an Emeritus Professor at the Faculty of Engineering and the Built Environment, UKM and the Research and Technical Director at Entruss Ventures Sdn Bhd (EVSb) (1186369-A). Prior to her appointment as an emeritus professor, she was Professor and Adjunct Professor at the Faculty of Engineering and the Built Environment, UKM. She specialises in Polymer Processing, Materials Selection and Nanomaterials.

Her immediate past appointments were as Visiting Professor at the University of Duisburg-Essen, Germany (Gast Professorina) and Principal Fellow (Professor) at Universiti Sains Islam Malaysia (USIM). She graduated from Brunel University, England, with her BTech and PhD in 1979 and 1985, respectively. Prof Husna incorporated Entruss Ventures Sdn. Bhd. in 2016 to expedite the commercialisation of her invention ENTRAP™, an impact attenuation system in defence. This invention holds several IPs, the latest being an Industrial Design (ID) in 2020. Prof. Emeritus Dr. Che Husna is also a published author of creative writing in English. Her collection of stories, set in South-East Asia, is licensed to Alexander Street Press, USA (SAL1/0069/South and Southeast Asia).

Prof. Emeritus Dr. Che Husna's other research is on Indigenous Technology of the Malay World, in which she holds a copyright on traditional *pinisi* (schooner) design. She also researches and publishes on Women and Leadership, Work Life and Balance (WLB) of women professionals.

### CONTACT



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entrussv

Entruss Ventures

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[www.entruss.net](http://www.entruss.net)

NO. 15, JALAN 1/3C,  
43650, BANDAR  
BARU BANGI,  
SELANGOR,

## CURRENT APPOINTMENTS

- **Research and Technical Director**  
Entruss Ventures Sdn Bhd (2019 – current)
- **Emeritus Professor in Polymer Processing,**  
Universiti Kebangsaan Malaysia. 48<sup>th</sup> Convocation (2021-current)

## IMMEDIATE PAST-APPOINTMENTS (2017-2024)

- **Adjunct Professor**  
Faculty of Engineering and The Built Environment  
Universiti Kebangsaan Malaysia (June 2017- June 2018)
- **Director/Principal Fellow (Professor)**  
Kolej Permata Insan  
Universiti Sains Islam Malaysia (USIM) (October 2017-October 2019)
- **Adjunct Professor**  
Open University Malaysia (2022 – 2023)
- **Felo Utama Kehormat Bersekutu**  
**Associate Principal Honorary Fellow**  
Pusat Kepimpinan Wanita Tun Fatimah Hashim, Universiti Kebangsaan Malaysia  
(2020 – 2024)

## 1. VISITING PROFESSORSHIP (From 2000-2024)

### UNIVERSITY OF DUISBURG ESSEN

- **VISITING PROFESSOR** to teach **Islam and Engineering** at the University of Duisburg-Essen, Duisburg. I was a member of the pioneering group that taught Islam and Engineering to the Faculty of Engineering, for the UKM-UDE Double Degree programme. My host was Prof Axel Hunger.  
(Jan 2003)
- **DAAD VISITING PROFESSOR (GAST PROFESSORINA)**  
I was sponsored by the DAAD to teach Islam and Engineering, Culture and Design, and Polymer Processing. My host was Prof Axel Hunger from the Institute of Microelectronics and Electrical Engineering.  
(Oct 2016 - Mar 2017)

**KAZAKH NATIONAL TECHNICAL UNIVERSITY, KAZAKH, ALMATY,  
KAZAKHSTAN**

- **VISITING PROFESSOR**

Sponsored by the Malaysian Turkish Dialogue Society (MTDC)  
(June 2011)

**NAGAOKA UNIVERSITY OF TECHNOLOGY, JAPAN**

- **VISITING PROFESSOR**

Advanced Nanomaterials to Systems Eng. Lab, invited by Prof Y. Mutoh, the Vice President and Professor of Systems Lab Engineering, to study microstructures of Composites (2 weeks)  
(Nov 2010)  
(Oct 2011)

**UNIVERSITY OF BENGKULU, INDONESIA**

- **VISITING PROFESSOR**

Hosted by Prof Hendra to teach Materials Processing at the Faculty of Engineering  
(Nov 2012)

**INTERNATIONAL BURCH UNIVERSITY, SARAJEVO**

- **VISITING PROFESSOR**

Advanced Nanomaterials, and a course for postgraduate young academics Professional Development.  
(<https://www.ibu.edu.ba>)  
(Nov 2011)

**SHAHID BEHESHTI UNIVERSITY, TEHRAN, IRAN**

- **VISITING PROFESSOR**

I was the Organising Chairperson of the Joint Conference between UKM and the Institute for Social and Cultural Justice, Ministry of Science, Technology and Research, Islamic Republic of Iran, headed then by Prof J. Hatami, to organise the joint Conference: Islam and Society Series with the theme “Society and Justice in Islam”

- **VISITING PROFESSOR**

Materials Processing to the Mechanical Engineering Department, Faculty of Engineering. (Nov 2012)

**SULEYMAN DEMIREL UNIVERSITY, KAZAKHSTAN**

- **VISITING PROFESSOR**

I conducted a 3-week training workshop on Professional Development for Young Academics.  
(April - May 2013)

## **UNJANI, BANDUNG, INDONESIA**

- **VISITING PROFESSOR**

I conducted a seminar on materials in defence  
(Feb 2014)

## **AIBUKHARY INTERNATIONAL UNIVERSITY, MALAYSIA**

- **VISITING PROFESSOR**

Workshop on Islam and Islamic Civilisation in collaboration with Ibn Haldun  
University, Istanbul  
September 2016

- **REPRESENTATIVE**

For the Student Sponsorship programme, Cambodia  
February 2025

## **FATIH UNIVERSITY, ISTANBUL, TURKEY**

- **VISITING PROFESSOR**

Research Collaboration on Nanomaterials with Prof Cewdet Meric, Dean, Faculty of  
Engineering  
April-May 2014

- **TUBITAK VISITING PROFESSOR**

I taught Manufacturing Process to Industrial Engineering students as a module for one  
month  
January -February 2015.

## **YARSI, JAKARTA, INDONESIA**

- **VISITING PROFESSOR**

Faculty of Dentistry. My host was the Chairman, Prof Yurnalis Uddin  
Sept 2014

- Collaboration on Alternative Dispute Resolution and as Adjunct Professor to Open  
University, Malaysia  
April 2023

## **SULEYMAN SAH UNIVERSITESI, ISTANBUL**

- Quality Assurance in Higher Education. My host was the Rector, Prof Dr Husseyn Ekiz  
Dec 2013

## **FATIH SULTAN MEHMET VAKFI UNIVERSITESI, ISTANBUL**

- **VISITING PROFESSOR**

At the Faculty of Engineering with the AMPI group, UKM. Our host was the Dean of  
Engineering, Prof Fevzi.  
May 2013

To study collaboration for the Accelerated Group with the DVCA and coordinated by Ms Bedia Tekin.

May 2018 ( Programme with Kolej Permata Insan, USIM)

## **UNIVERSITAS TIRTAYASA, INDONESIA**

- **VISITING PROFESSOR and OPEN UNIVERSITY ADJUNCT PROFESSOR**

**Faculty of Engineering and Rectorate**

Seminar of Nanomaterials, Technology Transfer and the Faculty of Engineering.

Introduction to the Open University Malaysia at the Main Campus.

April 2023

## **AMIR KABIR UNIVERSITY OF TECHNOLOGY, TEHRAN**

- **VISITING PROFESSOR AND RESEARCH COLLABORATOR**

Visiting Professor to the Department of Mechanical Engineering, Amir Kabir, in collaboration with Prof Omidvar and MAPNA and Prof Dr Zainudin Sajuri, UKM for the development of metal coatings

Jan 2018-Nov 2018

Nov 2019-Feb 2020

## **2. INDUSTRIAL AND RESEARCH ATTACHMENT INDUSTRIAL COLLABORATION (OUTSIDE MALAYSIA)**

<b>No</b>	<b>Place of Attachment and Date</b>	<b>Nature of Attachment</b>	<b>Outcome</b>	<b>Host</b>
1	Institut Francais Du Petrole (IFP) Rueil Mailmaison, Paris  Dec 1988	Grant as Visiting Researcher from IFP	Research Collaboration with IFP Solaize and PRSS, Petronas	Dr Jean Gaillard, IFP
2	Institut Francais Du Petrole, Solaize, Lyon, France  Nov 1990- February 1991	Grant as Visiting Researcher and Industrial Collaborator. I worked on the industrial catalytic reactor to study pressure drop correlations. This project was submitted as part requirement for my Chartered Engineer application in 1993.	Publication and Chartered Engineer status. This also enabled me to apply for EuroIng Status	Dr Jacques Alagy. Director of IFP, Solaize, Lyon, France

3	Wolfson Institute Polymer Processing, Brunel University, Middlesex, Uxbridge  March 1991- April 1991	I was sponsored by the Asian Development Bank (ADB) as a Visiting Researcher, to study the Melt Processing of PA/PP Thermoplastic Blends Using Conventional Polymer Melt Processing.	Publications and Collaboration	Prof Dr Peter Hornsby, Department of Polymer Engineering
4	Wolfson Institute of Polymer Processing, Brunel University  May 1992	A one-month placement to study melt processing in injection moulding	A Q1 paper in <i>Polymer</i> .	Prof Peter Hornsby, Department of Polymer Engineering
5	Université de Technologie De Compiègne, Compiègne, France  1995-1998	I worked with colleagues from the Université de Technologie De Compiègne (UTC), a branch of the University of Sorbonne, Paris. We were awarded an ASEAN EU-GRANT (CONT -CEE-CII-CT93-0356  Ref : Titian Cemerlang, Teraju Ilmu Traversing Excellence, Pioneering Knowledge Fakulti Kejuruteraan, UKM 2005.	The project entailed designing, commissioning, and fabricating a 6m riser pilot plant at the Faculty of Engineering, UKM. The project started in 1995 and finished in 1998  Our group won a special award for the generation of funds in 1995	Prof Pierre Guigon and Prof Khalil Shakourzadeh UTC  Prof Dr Che Husna Azhari Dr Siti Masrinda Tasirin, Prof Dr Nik Abdullah Nik Salleh, Namazi Azhari UKM
6	Industrial Collaboration with Nanotech global Indonesia	As the Research and Technical Director of EVSB, I teamed with Nanotech Global Indonesia, a company specialising in commercialising innovation in Indonesia, to jointly develop products from both countries. Our first product was in child care products	Research Collaboration and market strategy	Ir Suryandi and Prof Dr Nurul Taufiqu Rochman Directors of PT NanotechGlobal Indonesia

	2023-current	category, which was stalled due to marketing challenges		
7	Training Collaboration with Paragon International University, Phnom Penh, Cambodia  2022-current	Training in Technology Transfer and Research Management	Collaboration	Prof Meirembek Zhaparov Deputy Vice Chancellor of Academic and student Affairs
7	Cambodia University of Management and Technology (CUMT) Phnom Penh Cambodia 2025-current	Collaboration on training of Communication Skills	Collaborative partnership	HE Sles Nazy, Rector

### 3.UNDERGRADUATE INDUSTRIAL PLACEMENTS

- Amalgamated Dental Chemicals, Alderstone, Surrey, UK (March 1976-September 1976)
- Rubber Research Institute of Malaysia, Jalan Ampang, Kuala Lumpur, (March 1977-September 1977)
- Alcan Foils, Wembley, UK ( March 1978-September 1978)

(In ADC, Surrey, I was tasked to commission a particle size analyser, the Coulter Counter. I spent 6 months at RRI Research Laboratory doing testing of natural rubber. At Alcan Foils, I was involved in the downstream processing of Alcan products). This was the requirement of the then BTech degree graduates of Brunel University.

### 4.APPOINTMENTS (INDUSTRY/HIGHER EDUCATION)

NO	NATURE OF APPOINTMENT	ORGANISATION	DURATION
1	Deputy President	Institute of Materials Malaysia (IMM) A national learned and professional institute for professionals in materials science and engineering	2012-2014
2	Deputy President	B.L.E.V.E Association Boiling, Liquid, Expanding, Vapour Explosion. Dedicated to ensuring safety in the Oil and Gas sector	2018-2019

3	Deputy Director	Division of Quality Assurance, Ministry of Higher Education, Malaysia  Worked under the mentorship of Tan Sri DS Dr. Prof Emerita Sharifah Hapsah in the team during the inception of the Malaysian Qualifications Agency and the Malaysian Qualifications Framework	2005-2006
4	Head of Project	Malaysian Higher Education Ranking Project SETARA (Sistem Penarafan Pengajian Tinggi)  Division of Quality Assurance Ministry of Higher Education, Malaysia  Two projects were developed SETARA and ARES (Academic Research Survey)	Phase One : May 2005- May 2007  Phase 2 : Nov 2007- April 2008
5	Member of Panel	Peer Review Implementation of National Higher Education (IIUM, USIM and USM) Division of Quality Assurance Ministry of Higher Education Malaysia	Dec 2009
6	Member of Task Force	Team for setting up the Malaysian Citation Agency or MyCITE. The team was appointed by the Ministry of Higher Education, which made the recommendation for MyCite,	2009-2011
7	Principal Fellow  Lead Researcher	Institut Kajian Strategik Islam Malaysia (IKSIM) Council of Rulers  Head of Cluster Project on Feminism in Malaysia	2015-2017

## 5. APPOINTMENTS AT UKM and USIM

No	NATURE OF APPOINTMENT	AGENCY	DURATION
1	Head of Division Strategic Planning Centre for Academic Development	UKM	1998-2001



	I was in the team that produced the UKM Strategic Plan 1990-2000		
2	<b>Deputy Director</b> Centre for Academic Advancement  I was responsible for the Academic Quality Assurance, Academic Restructuring and Planning	UKM	2002-2004
3	<b>Director</b> Institute of the Malay World and Civilisation (ATMA)  I was the first science and technology-based Director of ATMA. My appointment was to strengthen the science and technology-based research in ATMA	UKM	2007-2008
4	<b>Director</b>  Centre for Corporate Planning and Leadership I reported directly to the Vice Chancellor and was responsible for Academic Planning and Restructuring, Quality Assurance and Accreditation, Human Resource Planning, and University Performance	UKM	2009-2011
5	<b>Principal Fellow</b> <b>Director</b>  Kolej Insan USIM The Permata project for gifted children	USIM	2017-2019
	<b>Member</b> Project with National Literature Laureate SN, Prof Emeritus Dr Muhammd Haji Sallen	USIM	2019

#### 6. MEMBER OF COMMITTEES AT UKM (2007-2017 ONLY)

- **UKM Senate .** Committee For the Appointment of Visiting Scholars. 2007-2011
- **UKM Senate.** Special appointment by the Vice Chancellor on Quality Assurance 2006-2007
- **UKM Senate .** 2006-2011
- **Project Management Officer.** To report on UKM Performance, 2009-2011
- **Member of University Quality Assurance Team for Quality Awards.** 2008-2011
- **Head, Council of Professor.** Faculty of Engineering and the Built Environment. 2013-2016
- **Deputy Chairperson.** Advanced Materials and Nanotechnology Niche. 2017-2019

## 7. ACADEMIC TENURE AT UKM

NO	ACADEMIC POSITION	YEAR AND DEPARTMENT
1	Tutor	1979-1985 Department of Chemical Technology Faculty of Science (Jalan Pantai Kampus)
1	Lecturer and Senior Lecturer	1985-1991 Department of Chemical and Process Engineering Faculty of Engineering  Department of Mechanical and Materials Engineering Faculty of Engineering
2	Associate Professor	1993 Department of Mechanical and Materials Engineering
3	Professor (VK7)	2000 Department of Mechanical and Materials Engineering
4	Professor (VK6)	2006 Department of Mechanical and Materials Engineering
5	Professor (VK5)	2009 Department of Mechanical and Materials Engineering
6	Contract Professor (VK7)	2015-2016 Department of Mechanical and Materials Engineering
7	Adjunct Professor	2017 Department of Mechanical and Manufacturing Engineering
8	Professor Emeritus	2021 Department of Mechanical and Manufacturing Engineering

## 8. RESEARCH APPOINTMENTS AT UKM (with Letters of Appointment)

No	APPOINTMENT	DURATION
1	Head of Cluster Malay Thought, Civilisation and Technology	2007-2009

2	<b>Head of Group</b> Advanced Materials Processing and Integrity Research Group (AMPI)	2007-2016
3	<b>Expert</b> <b>Nanotechnology and Advanced Materials Niche</b>	2008-2016
4	<b>Secretariat</b> <b>UKM Niche Committee</b>	2009-2010
5	<b>Deputy Chairperson</b> Nanotechnology and Advanced Materials Niche	2014-2016
6	<b>PRINCIPAL ASSOCIATE RESEARCH FELLOW</b> The Institute of the Malay World and Civilisation	2008-2017
7	<b>PRINCIPAL ASSOCIATE RESEARCH FELLOW</b> The Institute for Solar Energy (SERI)	2006-2017
8	<b>PRINCIPAL ASSOCIATE RESEARCH FELLOW</b> Centre for Academic Advancement	2010-2012
9	<b>PRINCIPAL ASSOCIATE RESEARCH FELLOW</b> Centre for Women Leadership	2014-2016
10	<b>PRINCIPAL ASSOCIATE RESEARCH FELLOW</b> Centre for Engineering Education Faculty of Engineering	2014-2016

## 9. APPOINTMENTS AT THE FACULTY OF ENGINEERING, UNIVERSITI PUTRA MALAYSIA

1. **Member of Expert Group**  
Department of Aeronautics Engineering  
Faculty of Engineering  
2014-2016
2. **Member, Board of Studies**  
Master's Programme  
Innovation and Design  
2016-2019

## 10. UNDERGRADUATE TEACHING

- **Universiti Kebangsaan Malaysia (1992-2016)**  
Engineering Materials  
Manufacturing Process  
Polymer Processing  
Composites Processing

- **AIU International University (2011)**  
Scientific Luminaries in Islam  
The Philosophy of Rumi and Ghazali
- **Kolej Insan, USIM**  
Scientific Luminaries in Islam (2017-2019)
- **Fatih University, Istanbul (2013)**  
Manufacturing Process
- **Universitat Duisburg- Essen (2016-2017)**  
Polymer and Composites Processing  
Islam and Engineering

## 11. POSTGRADUATE TEACHING

- **Universiti Kebangsaan Malaysia**  
Polymer and Composites Processing  
Presentation Skills
- **MEng at Universitat Duisburg-Essen**  
Culture and Design  
Islam and Engineering

## 12. EDUCATION

No	School/Institution	Highest Qualification and Year
1	Kolej Tunku Khurshiah Seremban	MCE 1972
2	Oxford College of Further Education Oxford	A Levels 1975
3	Brunel University Uxbridge United Kingdom	BTech (Hons) Polymer Technology 1979
4	Brunel University Uxbridge United Kingdom	Heterogeneous Catalysis 1985

## 13. PROFESSIONAL QUALIFICATIONS

1	QUALIFICATION AND DESIGNATION	Year and Awarding Body
	Chartered Engineer. CEng 447496	1993. The Engineering and Technology Council UK
2	Teaching Licence	2023

	PM/IPTS/2023/01/0020	Ministry of Education
<b>3</b>	Certified Trainer	2023 Ministry of Human Resources
<b>4.</b>	Graduate Technologists (GT) GT25080470	2025. Malaysian Board of Technologists (MBOT)
<b>5.</b>	Professional Technologies (Ts) PT25100202	2025. Malaysian Board of Technologists (MBOT)
<b>6.</b>	Accreditation Trainer 14217	2025. HRD Corp Ministry of Human Resources

#### 14. LANGUAGE PROFICIENCIES

- Bahasa Melayu/Malay. Fluent.MCE72
- English. Fluent. MCE72
- French. Beginner. DELF.A2. Dec2020
- Arabic. Beginner

#### 15. AFFILIATIONS WITH PROFESSIONAL AND LEARNED BODIES

<b>No</b>	<b>NAME OF AFFILIATION DESIGNATION/STYLE</b>	<b>AWARDING BODY</b>	<b>DATE OF AWARD</b>
<b>1</b>	Fellow. FIMMM 34827	Institute of Materials, Mining and Minerals, United Kingdom	2009
<b>2</b>	Fellow FIMM F-1998-0010	Institute of Materials Malaysia	1998
<b>3</b>	Approved Assessor  Scrutineer and Mentor	IOM3 Institute of Materials, Mining and Minerals, United Kingdom The Engineering and Technology Council, United Kingdom	2013-2016
<b>4</b>	Council Member	Institute of Materials Malaysia	2000-2012
<b>5</b>	Member	General Assembly Network of Women Scientists and Experts of the Islamic World	2010
<b>6</b>	Member	Industry and Innovation Cluster Council of Professor Malaysia	2009-2014
<b>7</b>	Member	UTM University Accreditation Committee University appointment	2013-2017

## 16. INTELLECTUAL PROPERTY REGISTRATION

NO	TYPE OF INTELLECTUAL PROPERTY	DATE OF ISSUE	DATE OF EXPIRY	IP HOLDERS
1	Trademark ENTRAP : Life matters most. ENTRAP	12.08.2014	26.02.2033 Active	Noraiham Mohamed.UTeM Maryam Jameelah Ghazali. UKM Andanastuti Muchtar. UKM Che Husna Azhari.UKM
2	Industrial Design Bulletproof Vest	5.06.2014	Lapsed	Noraiham Mohamed.UTeM Maryam Jameelah Ghazali. UKM Andanastuti Muchtar. UKM Che Husna Azhari.UKM
3	Industrial Design Bulletproof Vest	31.12.2018	Lapsed	Zainudin Sajuri.UKM Maryam Jameelah Ghazali.UKM Che Husna Azhari.OKM
4	Copyright Enflex Flexi Trauma Pack Ly2016000861	2016.	Active	Noraiham Mohamad Hairul Effendy Ab Maulod Jeefferie Abd Razak Arsyadi Azam Mohd Abid Mohd Hanafiah Mohd Isa Che Husna Azhari
5	Patent (Utility Application) A Multi-Segmented material of Reinforced Rubber and Natural Rubber for Producing Body Armour	17.Nov 2015	Active	Che Husna Azhari Andanastuti Muchtar Maryam Jameelah Ghazali

	PI 2001137011826			Noraiham Mohamed
6	Trademark Multi-Media Angklung Class 16 and 42	-	-	Salina Abdul Samad Aini Hussain Che Husna Azhari Mohd Ridzuwary Mohd Zainal
7	Copyright and Licensing Alexandre Street Press. Collection of Four Short Stories in the Southeast Collection	2016	Lapsed	Royalty Holder AZHARI0001
8	Copyright LY2016001580 Integrated algorithm in Virtual Reality (VR) of Reconstructed Pinisi Design.	31.05.2016	Active	Muhammad Abu Ubaidah Amir bin Abu Zarim Wan Ikhlas Wan Mohtar Che Husna Azhari Ahmad Najmuddin Assanah Khairul Mulzamil Abdullah Lt KDRMohd Najib AbdulGhani Yolmahid (Bersara)
9	EVSB Life Protective System MySTI Certificate MOSTI/2025/STI202500818	30 April 2025	Active	Entruss Ventures Sdn Bhd

## 17. COMMERCIALISED PRODUCTS

**ENFLEX**  
FLEXI TRAUMA PACK

### Why EnFlex?

Detachable trauma pack comprising a series of impact-absorbing indigenous materials for various ballistic threat levels. This durable, lightweight and compliant EnFlex interior is enclosed in corrugated packaging, giving extra comfort to the wearer with great flexibility and performance.



- Corrugated structures in "Flexi-trauma pack" increase the flexibility, comfort and durability of the wearer.
- Indigenous materials adapted for increased performance
- Cost effective compared to competitors
- Blunt trauma reduction

**EN RUSS**

### Hard Body Armour (Bullet Resistant Vest)

**MECVEST BULLET RESISTANT VEST**



- Adjustable Shoulder Straps**  
Perfect body fit.
- 2 Hidden Hard Plate Pockets**  
Provide maximum coverage protection & flexibility.
- High Quality Fabric**  
Strong & tear resistant Nylon
- Adjustable Wide Straps**  
Comfort body fit & protect under rib cage

**TEST RESULTS**

- Thickness: 6.6 mm
- Face area: 50 x 200 mm
- Mass: 0.195 kg
- No penetration
- Initial speed: 435 m/s
- Final speed: 0 m/s
- NIJ Standard: 0001.04
- NIJ Level: Level IIIA
- 9 x 19 mm FMJ RN
- Average speed: 435 m/s
- Distance: 5 m

**5.7 kg**

### Soft Body Armour (Inner vest)

**ENRAP INNER VEST**



- Adjustable Shoulder Straps**  
Perfect body fit
- ENRAM: Natural Elastomer Ceramics Composites**  
Blunt trauma protection on chest and back
- Natural Fibre Woven Fabric**  
Soft, skin comfort and strong
- Adjustable Wide Straps**  
Comfort body fit & protect under rib cage

**TEST RESULTS**

A woven fabric made out of a natural fibre.

- Tensile strength (Max): Warp: 125 MPa, Weft: 98 MPa
- Elongation (Max): Warp: 31 %, Weft: 28 %
- Tear strength: Warp: 87 N, Weft: 117 N

**ENRAM: A composite of ceramics particulate filler and natural elastomer matrix.**

- Tensile strength: 13-22 MPa
- Elongation: 490-570 %
- Hardness (Shore A): 45-53
- Rebound Resilience: 55-59 %
- Reducing 30% Impact Energy

**MySTI**



**ENTRUSS VENTURES**

**ENTRAP**  
Life matters most

### Why ENTRAP?

Incorporates **green sustainable materials** that are of advanced quality and lightweight for **high ballistic shielding** ensuring **multi-threat protection** in combat whilst maintaining competitive prices to ensure **total customer satisfaction**.



- Side opening provides optimum protective coverage while allowing maximum freedom of movement
- Capable in defeating NIJ threat level IIIA (body armour standard)
- Easy to wear and provides a perfect combination of form, fit and function.

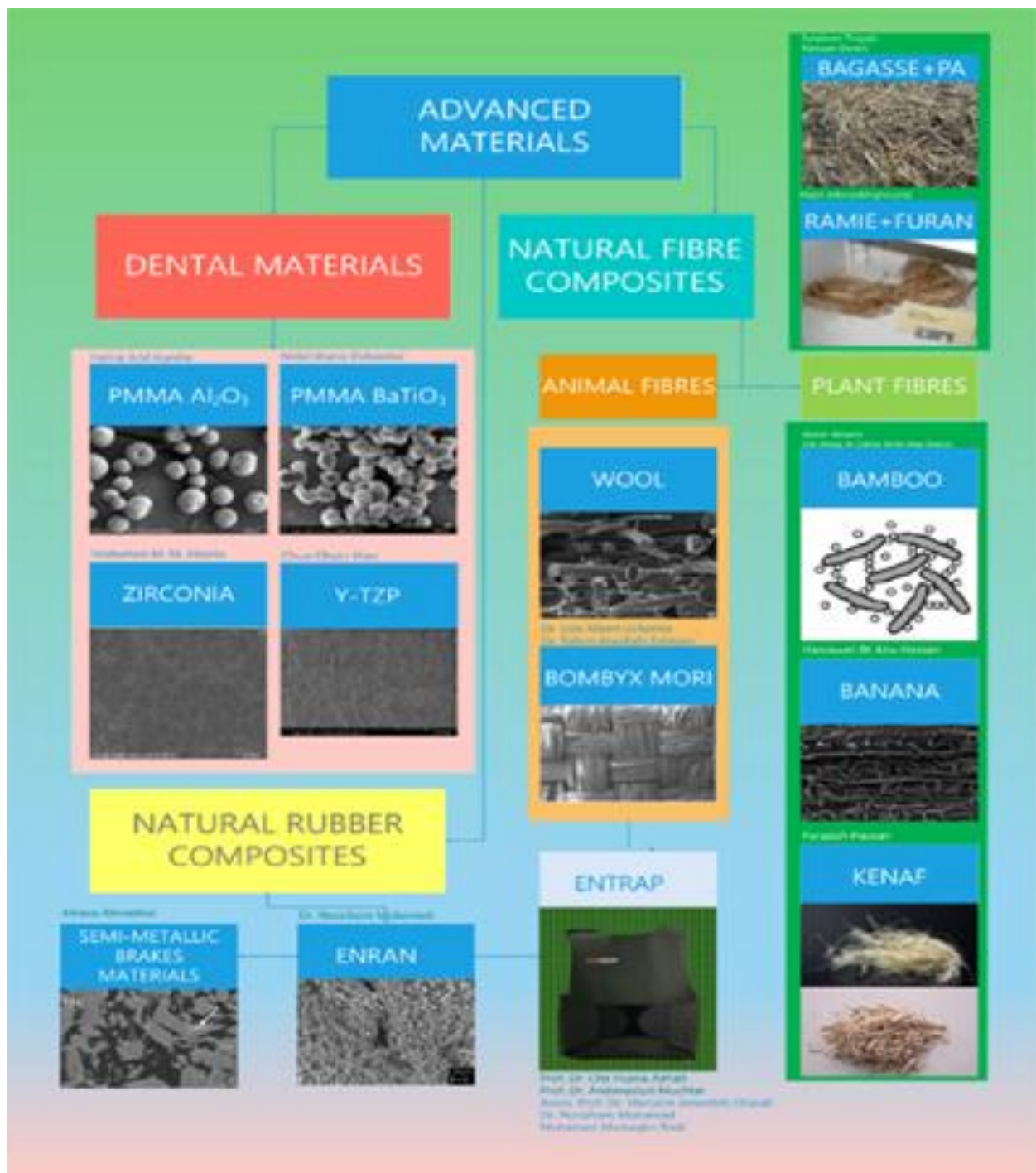
**PATENTED**  
NY - 193730

**ENTRUSS VENTURES**



## 18. RESEARCH SPECIALISATION

- **Non-Metallic Materials:** Polymer Melt Processing, Structure-Property Relationship, Composites Processing
- **Reaction and Process Engineering:** Gas-Solid Interactions in Circulating Fluidised Beds, Catalysis
- **Malay Ethnology:** Materials Fabrication Technology
- **Muslim Women in Science and Engineering:** MWISE



**19. RESEARCH AWARDS (NATIONAL AND INTERNATIONAL, 1995  
CURRENT)**

<b>NO</b>	<b>TYPE OF AWARD</b>	<b>AWARDING BODY/YEAR</b>	<b>STATUS of AWARD</b>
1	Special Award for the Generation of Research Funds of the CFB Pilot Plant at the Faculty of Engineering, FKAB (Project no CONT-CEE-CII-CT93-0356) Grant from EU-Asean  Assoc. Prof Dr Che Husna Azhari Dr.Nik Abdullah Nik Mohamed Dr Siti masrinda tasirin Mr.Namazi Azhari	UKM 1996	UKM Special Award
2	The ITEX Awards International Invention, Innovation and Technology Exhibition. Natural Silk and NS/PE Trengganu Silk Composites for Soft Body Armour  Che Husna Azhari Tofrawaih Mohd Amin	Malaysian Invention and Design Society (MINDS) 2003	Silver Medal
3	ITEX Award Image Processing iFace Detector for Malaysian Multi Media Art and Database Collection Research Salina Abdul Samad Aini Hussain Che Husna Azhari Khairul anuar Ishak Tan Chin Hu Tham Chia Chieh	MINDS 2005	Silver
4	ITEX Award Multi Medai Angklung Salina Abdul Samad Aini Hussain Che Husna Azhari Mohd Ridzuwary Mohd Zainal	MINDS 2007	Silver
5	ITEX Award	MINDS	Silver

	For Solar Car Silk Body : Solar Car Body from Natural Silk/Polyester Che Husna Azhari Afif Akmal Abdul Rahman Rozli Zulkifli Kamaruzzaman Sopian	2007	
6	ITEX Award Car Energy Absorber System Che Husna Azhari Simin Ataollahi, Ahmad Kamal Ariffin, Rozli Zulkifli	MINDS 2008	Bronze
7	MTE Medal for MyGSI : Malaysian Generic Skills Inventory  Prof Datin Dr Siti Rahayah Ariffin and Team including Prof Dr Che Husna Azhari	Malaysian Association of Research Scientists 2009	Gold
8	MTE Expo MyGSI : Malaysian Generic Skills Inventory  Prof Datin Dr Siti Rahayah Ariffin and Team including Prof Dr Che Husna Azhari	Malaysian Association of Research Scientists 2009	The Best Award
9	MTE Expo Soft Body Armour from Natural Materials  Che Husna Azhari Andanastuti Muchtar Maryam Jameelah Ghazali Rozli Zulkifli	Malaysian Association of Research Scientists 2011	Silver
10	MTE EXPO Entrap Ergonomic Protection from ballistic Operation Che Husna Azhari Andanastuti Muchtar Maryam Jameelah Ghazali Iylia Arif Ilias	Malaysian Association of Research Scientists 2011	Silver
11	Excellent Paper Award Maryam Jameelah Ghazali Hasrawati Abu Hassan Che Husna Azhari	Japan Society of Mechanical Engineers 2015	Excellent Paper Award and Cash Prize

	Fatma Azura Mamat	The Bioadhesion Behaviour of Banana Leaves as Soil Remover at Elevated Temperatures	
12	INTEX Award All Around Protective Bulletproof Vest for Defense and Security  Prof Dr Zainudin Sajuri Prof Emeritus Dr Che Husna Azhari Prof Rozli Zulkifli Prof Dr Maryam Jameelah Ghazali	UNIMAS  2022	Gold
13	Putrajaya Festival of Ideas Prof Emeritus Dr Che Husna Azhari, Ed. Polymer Composites Derived from Animal Sources	2024	Certificate of Mention

## 20. RESEARCH AWARDS (UKM)

No	NAME OF AWARD	YEAR
1	<b>Anugerah Buku in Conjunction with 35 years of UKM</b> Bahan Tempatan dalam Ungkapan	2006
2	<b>Innovation Award</b> Winner of Anugerah Citra Swakreditasi Group headed by Prof Dr Che Husna Azhari	2011
3	<b>Research Award for Group</b> Advanced Materials Processing and Integrity Group AMPI headed by prof Dr Che Husna Azhari	2011
4	<b>Innovation Award</b> Committee for the UKM Transformation Plan Anugerah Citra UKM Headed by Prof Dr Che Husna Azhari	2012
5	<b>Research Award for Group</b> Advanced Materials Processing and Integrity Group AMPI Headed by Prof Dr Che Husna Azhari	2013
6	<b>Research Award</b> Research Group Cabaran Membina Negara Bangsa Malay World and Civilisation Niche	2013
7	<b>Excellence in Research Award</b> INDIVIDUAL AWARD Prof Dr Che Husna Azhri Book Publishing	2014

## 21.HONOURS

- **SERVICE AWARDS**

UKM Excellence Service Award 2003

- **AWARD FROM KELANTAN STATE GOVERNMENT**

Pingat Setia Mahkota Kelantan. (PS) 2004

- **SPECIAL HONOURS FOR 11 WOMEN MUSLIM PROFESSIONALS**

Recognition by Tun Dr Siti Hasmah at Sri Perdana. First Ladies Luncheon. 10<sup>th</sup> OIC Meeting.2004.

- **HONORIS CAUSA**

Honoris Causa from the Bauyan Royal Institute of Culture. Mindanao 2015.

## 22. INAUGURAL/ SPECIAL LECTURES

- **SYARAHAN PERDANA**

**Che Husna Azhari.2005.**

Bahan Tempatan dalam Ungkapan Ilmu dan Penyelidikan Syarahan Perdana UKM. No 82.

28 Julai 2008.

Bilik Majlis UKM.

- **SYARAHAN TUN SERI LANANG**

**Che Husna Azhari.2022,**

Reka Watan Benak Melayu.

Speaker laureate for the Tun Seri Lanang Library, UKM.

26<sup>th</sup> June 2022. Yun Seri Lanang Library, UKM

## 23. REVIEWERS/EXAMINERS/CONSULTANT

No	NATURE	PARTNER AGENCY	YEAR
1	EXTERNAL EXAMINER TO ACADEMIC PROGRAMMES	Materials and Manufacturing Engineering	2012
		Materials Engineering UTM	2007-2009
		Materials Engineering UTeM	2013-2014

<b>2</b>	<b>PANEL REVIEWER FOR RESEARCH GRANTS</b>  Reviewer for FRGS, LRGS, TRGS, PRGS and PRGS-MRS Grants for the Ministry of Higher Education Malaysia	Ministry of Higher Education Malaysia	2012-2019
<b>3</b>	<b>REVIEWERS/EDITORS FOR LEARNED JOURNALS</b>       <b>REVIEWERS (with letter of appointment, 2 years)</b>	<p>Founder Editor Journal Institute of Materials Malaysia</p> <p>Journal of Physical Science, USM</p> <p>Journal Of Advanced Manufacturing Technology UTeM</p> <p>Journal Institution of Engineers, Malaysia</p> <p>Composite Structures</p> <p>Polymer Composites</p> <p>Materials and Design</p> <p>Natural Fibre Composites</p>	<p>1997-2003</p> <p>2013-2016</p> <p>1997-2003</p> <p>1997-2003</p>
<b>4</b>	<b>CONSULTANT</b>  Preparation of Autonomy Status of Public Universities	Ministry of Higher Education Malaysia	2008-2016
<b>5</b>	<b>PANEL MEMBER</b> ISO TC 45 Rubbers in Technical Applications	<p>SIRIM</p> <p>Technical Training</p>	<p>1995-2000</p> <p>1996-1998</p>
<b>5</b>	<b>MEMBER OF GOVERNING BOARD</b> For the Plastics Manufacturing Sector	CI Malaysia An ISO company accredited by UKAS	2008-2014

6	<b>CONSULTANT</b>	Bank Pembangunan Malaysia	1995
		Malaysian Plastics Manufacturers Association	Until 2019
		Majlis Latihan Vokesyenal	-
		Asian Development Bank	1998-2000
		Jabatan Standard Malaysia	1998-2000
		CIVITAS Group UAP on Education and Culture, Manila	2001-2004
7	<b>ADVISOR</b> Advisor for Academic Programme For Professional Materials Science and Engineering courses	MTE College	2007-2009
8	Academic Planning and Audit in UKM	Centre of Academic Advancement Centre for Corporate Planning	1999-2011
93	Reviewer for Enhancing University Transformation Programme UniTP.Purple Book	Ministry of Higher Education	2016

## 24. SUMMARY OF RESEARCH PROJECTS (2011-2014)

I had 13 registered projects in my name as Head of Project in :

- Nanostructured Composites
- Carbon and Natural Silk Composites
- Recycle, Reuse and Performance of Advanced Materials
- Wear of Semi-metallics
- Nanostructured Dental Materials
- Submerged nanostructured ceramic-coated metals
- Ceramic Coating for marine Structures
- Production of Nano fibres using Electrospinning
- Impact attenuation in Natural materials
- Developing LCE Products

- The Development of Polymer Binders in Pavements
- The Development of Mesofibres

## 25. SUMMARY OF PUBLICATIONS

### i. **Publications in Science and Engineering may be assessed online using C.H.Azhari.**

Publications in Science and Engineering cover:

- Polymer Processing
- Natural Fibre Composites
- Dental Materials
- Nanomaterials
- Wear of Semi Metallics

H-index using Google Scholar is 34 and the number of citations is 3837

### ii. **BOOKS in Science and Engineering (Advanced Materials Series) (Published by The Institute of Materials Malaysia and Penerbit UKM)**

- **Che Husna Azhari**, Andanastuti Muchtar & Che Husna Azhari, Andanastuti Muchtar & Ahmad Kamal Ariffin Mohd Ihsan. Advances in Materials Processing Volume 1 . Institute of Materials Malaysia, Bangi. 2003

- **Che Husna Azhari** , Andanastuti Muchtar, Mohd Zaidi Omar & Mariyam Jameelah Ghazali. Advances in Materials Processing Volume 2 . Institute of Materials Malaysia, Bangi . 2009

- **Che Husna Azhari** , Mariyam Jameelah Ghazali, Andanastuti Muchtar & Mohd Zaidi Omar.. Advances in Materials Processing Volume 3 .Institute of Materials Malaysia, Bangi. 2014

- **Che Husna Azhari** , Rozli Zulkifli, Abu Bakar Sulong. Advances In Materials Processing And Integrity. Non Metals And Hybrids. Penerbit UKM. 2017

- **Che Husna Azhari**, Mohd Zaidi Omar, Shahrum Abdullah. .Advances in Materials and Integrity Metals and Semi Metallics. Penerbit UKM.2018



- **Che Husna Azhari**, Mohd Sapuan Salit, Rozli Zulkifli. Natural Fibre Composites. Penerbit UKM. 2021

### iii. PUBLICATIONS FROM INTERNATIONAL PUBLISHERS (2022-2024)

- S. M. Sapuan, **C. H. Azhari**, N. M Nurazzi. 2024. Polymer Composite Derived From Animal Sources. Elsevier. Cambridge. United States
- Noraiham Mohamad, Jeefferie Abdul Razak, Hairul Effendy Abdul Maulud, Andanastuti Muchtar, Mariyam Jameelah Ghazali, Dahlan Hj mohd and **Che Husna Azhari**. 2022. Alumina-Filled Rubber Composites and Mineral Filled Polymer Composites. CRC Press. Taylor and Francis London.

## 26. PUBLICATIONS IN THE HUMANITIES

- **BOOKS AND CHAPTERS IN BOOKS**
- Prof Emeritus Che Husna Azhari is a published writer in English creative writing (Material published are not exhaustive here and may be assessed online using Che Husna Azhari.(MLIE)

**Che Husna Azhari**. Sains dan Teknologi Alam Melayu. ATMA. Universiti Kebangsaan Malaysia. 1st Edition. 2009

**Che Husna Azhari**. Sains dan Teknologi. Alam Melayu. Ed. Penerbit UKM. Bangi. Malaysia 2017

**Che Husna Azhari**. Pemikiran. In Maryam Jameelah Ghazali. Ed. Ensiklopedia Kejuruteraan Melayu. Aras Mega Sdn Bhd. Bangi. 2015

**Che Husna Azhari**, Nik Hassan Shuhaimi Abdul Rahman, Abdullah Zaidi Hassan and Abdul Razak Mahmud. Gagasan Perjuangan Penubuhan UKM. Muzium Warisan Akademik. UKM 2013

- Che Husna Azhari**. Reka Melayu. Teknologi Alam Melayu. A. Latif Samian et al. Penerbit UKM. Bangi.2013
- Che Husna Azhari**, Kamarul Afizi Kosman and Rosdan Abdul Manan. Artifak Teknologi Melayu. ATMA. Universiti Kebangsaan Malaysia.2010
- Che Husna Azhari**, Mohd Syuhaimi Abdul Rahman, Ahmad Bazli Ahmad Hilmi. Menzahir Rahsia Alam. Furada Publishing House 2020
- Che Husna Azhari**. 2022. Budi dan Sains Alam Melayu. Penerbit USIM . 2022
- Che Husna Azhari**. Sains dan Teknologi Alam Melayu. 2025 3rd edition. Penerbit UKM
- Che Husna Azhari** . Gaya Kepimpinan Wanita Daripada Lensa Malaysia. Kepimpinan Kualiti : Profesor Tan Sri Dr. Dato' Seri Sharifah Hapsah Syed Hasan Shahabudin. Bahagian II : Bab 5 , halaman 76 - 94 . Penerbit UKM.2015
- M.J. Ghazali, M. Daud, A. Muhammad, M. Z. Omar & **C.H. Azhari**. Microstructural Analyses of Malay Keris and Its Relation to Properties. Acta Physica Polonica A.2015
- Hermayulis, Frengki Hardian, Hernadewita, Dian Amelia, **Che Husna Azhari**, Noor Inayah Yaakub & Rohimi Shapiee. An analysis of the leasehold concept in the land management system of Indonesia and Malaysia. The Social Sciences. 7(3):391 -404 ..2012
- G.A. Ibrahim, C.H. C. Haron and **C.H. Azhari**. Sustainable Rural Energy: Traditional Water Wheels in Padang. Int. Journal of Renewable Energy Technology. 2.1: 23 -31 . 2011
- Che Husna Azhari**. Emancipation, Women and The State: A competing agenda in 20th century Malaysia. Intl. Discourse. 9.2 (127 -144). International Islamic University. Kuala Lumpur

2001

**Che Husna Azhari**. 1997. Teknologi Warna Alam Melayu. Akademika. 51 (Julai): 53 -63 ..1997

- **SELECTED PROCEEDINGS**

**Che Husna Azhari** and Wan Ikhlas Wan Mohtar. The Technology of Malay Cannonry: Cultural Heritage of Malay- Ottoman Ingenuity. International Symposium on Turkey- East and Southeast Asia Relations. 2014

**Che Husna Azhari** & Mohamed Zain Musa. Access to Educational Opportunities and Empowerment of Cham Women. International Conference on Islam and Society (Justice in Islam). Book of abstract. 2012

Haziyah Hussain, **Che Husna Azhari**, Dzuraidah Abdul Wahab, Syaimak Andul Shukor & Aishah @ Eshah Haji Mohamed. Satu penentuan saiz badan wanita Melayu berdasarkan ukuran piawaian S, M. L dan XL. Persidangan Antarabangsa Sains dan Teknologi di Alam Melayu (Salam 1) : Perkembangan Sains dan Teknologi di Alam Melayu, Institut Alam dan Tamadun Melayu UKM. 2010

**Che Husna Azhari**. Reka Melayu: suatu tafsiran. Prosiding Persidangan Antarabangsa Sains dan Teknologi di Alam Melayu (Salam 1): Perkembangan Sains dan Teknologi di Alam Melayu, Institut Alam dan Tamadun Melayu UKM.2010

Maryam Jameelah Ghazali, Mohd Zaidi Omar, **Che Husna Azhari**, Kamarul Afizi Kosman & Shahril Mohamad. Kajian awal ke atas bilah keris Melayu - suatu pandangan saintifik. Prosiding Persidangan Antarabangsa Sains dan Teknologi di Alam Melayu (Salam 1): Perkembangan Sains dan Teknologi di Alam Melayu, Institut Alam dan Tamadun Melayu, UKM. 2010

- **CREATIVE WRITING IN ENGLISH**

**Che Husna Azhari** in M. A. Quayum. *Peninsular Muse*. Peter Lang. London 2009

**Che Husna Azhari**. *An English Sojourn*. Furada Publishing House. Bandar Baru Bangi, Selangor.

**Che Husna Azhari** in Amin Malak. *Muslim Narratives and the Discourse of English: Muslim Women's Autobiographical Narratives, Fatima Mernissi 's Dreams of Trespass, and Che Husna Azhari's A Rambutan Orchard*. SUNY. Albany, New York. 2005

**Che Husna Azhari**. *Puisi Ambo*. Furada Publishing House. Bandar Baru Bangi, Selangor. 1994

**Che Husna Azhari**. 1993, *Melor in Perspectives*. Furada Publishing House. Bandar Baru Bangi, Selangor. (Two stories “Mariah” and “Pak De Samad’s Cinema” are used as teaching materials for English for Matriculation students and at University for TOEFL courses). 1993

**Che Husna Azhari**. *The Rambutan Orchard*. Furada Publishing House. Bandar Baru Bangi, Selangor. 1993

**Che Husna Azhari**. *Kelantan Tales: An Anthology of Short Stories*. Furada Publishing House. Bandar Baru Bangi, Selangor. (The story of Bunga Telur and Bally Shoes is used as a teaching material for secondary school students by the Ministry of Education, Malaysia, and published by Dewan Bahasa and Pustaka.) 1992

**Che Husna Azhari**. *The Spinster in Molo*. *Southeast Asian Review of English*. 50: 166-178. Malaysian Association of Commonwealth Literature and Language Studies (MACLALS) with the College of Humanities, Arts and Social Sciences, Nanyang Technological University. Singapore. 2011

**Che Husna Azhari**. *My Paper Father*. *Tenggara: Journal of SEAsian Literature*. JPM. Penerbit UKM. 2000

**Che Husna Azhari**. 2025. *Conversations With My Father*. *ILS: An International Journal & Creative Writing Vol 2 (1)* 29 - 54. London.

- **SENARAI PENERBITAN DALAM TEKNOLOGI MELAYU DAN KEPIMPINAN DALAM BAHASA MELAYU**

**Che Husna Azhari.** Sains & Teknologi Alam Melayu. Dlm. Che Husna Azhari (pnyt.). Pembuka Tirai: Kerangka Intelektual, hlm. 17. Bangi: Penerbit Universiti Kebangsaan Malaysia. 2017

**Che Husna Azhari.** Sains & Teknologi Alam Melayu. Dlm. Che Husna Azhari (pnyt.). Peranti Pengubatan, hlm. 303. Bangi: Penerbit Universiti Kebangsaan Malaysia. 2017

Hermaliyus, **Che Husna Azhari**, Frengki Hardian & Kamarul Afizi Kosman. Sains & Teknologi Alam Melayu. Dlm. Che Husna Azhari (pnyt.). Kebijaksanaan Tempatan: Manfaat Lingkungan, hlm. 169. Bangi: Penerbit Universiti Kebangsaan Malaysia. 2017

Salina Abdul Samad, Aini Hussain, **Che Husna Azhari** & Mohd Ridzuwary Mohd Zainal. Sains & Teknologi Alam Melayu. Dlm. Che Husna Azhari (pnyt.). Pandai Bunyi Angklung Maya, hlm. 233. Bangi: Penerbit Universiti Kebangsaan Malaysia. 2017

**Che Husna Azhari.** Teknologi Alam Melayu. Dlm. Nazri Muslim, Abdul Latif Samian (pnyt.). Reka Melayu: Satu Tafsiran, hlm. 61. Bangi: Penerbit Universiti Kebangsaan Malaysia. 2016

Mariyam Jameelah Ghazali, Mohd Zaidi Omar, **Che Husna Azhari**, Kamarul Afizi Kosman & Shahril Mohamad. Teknologi Alam Melayu. Dlm. Nazri Muslim, Abdul Latif Samian (pnyt.). Bilah Keris Melayu: Analisis dari Pandangan Saintifik, hlm. 162. Bangi: Penerbit Universiti Kebangsaan Malaysia. 2016

**Che Husna Azhari.** Gaya Kepimpinan Wanita Daripada Lensa Malaysia. Dlm. pnyt.). Kepimpinan Kualiti: Profesor Tan Sri Dr. Dato' Seri Sharifah Hapsah

Syed Hasan Shahabudin, hlm. 76 . Bangi: Penerbit Universiti Kebangsaan Malaysia. 2015

**Che Husna Azhari.** Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.). Pemikiran: Pemikiran Sains Dunia Melayu, hlm. 2. Bangi: Aras Mega (M) Sdn Bhd.2015

Namazi Azhari & **Che Husna Azhari.** Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.). Pemikiran: Kreativiti dan Inovasi, hlm. 37. Bangi: Aras Mega (M) Sdn Bhd. 2015

Dzuraidah Abdul Wahab & **Che Husna Azhari.** Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.). Pemikiran: Produktiviti Saintifik Negara Islam dan Alam Melayu, hlm. 49. Bangi: Aras Mega (M) Sdn Bhd. 2015

**Che Husna Azhari.** Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.). Pemikiran: Seni dan Reka Dunia Melayu Islam, hlm. 55. Bangi: Aras Mega (M) Sdn Bhd. 2015

Wan Ikhlas Wan Mokhtar & **Che Husna Azhari.** Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.). Pemikiran: Resapan Teknologi Uthmaniyyah, hlm. 67. Bangi: Aras Mega (M) Sdn Bhd. 2015

**Che Husna Azhari.** Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.). Pemikiran:Estetika Melayu, hlm. 73. Bangi: Aras Mega (M) Sdn Bhd.2015.

**Salina Abdul Sanad,Hafizah Hussein, Aini Hussein and Che Husna Azhari.**2015 Ensiklopedia Kejuruteraan Alam Melayu. Dlm. Mariyam Jameelah Ghazali (pnyt.).eni Kreatif: Alat Muzik Berasaskan Buluh, hlm. 203. Bangi: Aras Mega (M) Sdn Bhd.2015