Muhammad Ismail bin Ab Kadir

Date of birth: 19th Nov 1966

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Qualifications:

1	**MSc. In Textile Dyeing and Printing**	**Universiti Teknologi MARA, Malaysia**	**2006**
2	**BSc. (Hons) in Textile Technology**	**Universiti Teknologi MARA, Malaysia**	**2001**
3	**Diploma in Textile Technology**	**Institut Teknologi MARA, Malaysia**	**1989**

Appointments and Experience:

1	Senior Lecturer	Faculty of Applied Sciences, Universiti Teknologi MARA	1/12/2011 – Now
2	Lecturer	Faculty of Applied Sciences, Universiti Teknologi MARA	1/11/2006 – 30/11/2011
3	Part Time Lecturer	Faculty of Arts and Design, Universiti Teknologi MARA	1/09/1999 – 31/10/2011
4	Research Assistant	Institute of Research, Development and Commercialization, Universiti Teknologi MARA	2003 – 2004

Prizes and Awards

1. SILVER Medal at IIDEX2017: Invention, Innovation & Design Exposition 2017**,** UiTM, Shah Alam "INNOVATIVE WEAVE STRUCTURES FOR KAIN TENUN PAHANG DIRAJA"

2. **BEST PAPER AWARD**:

   Muhammad Ismail Ab Kadir, Mohd Rozi Ahmad & Asmida Ismail, "The Effect of Cationic Surfactant Treatment on the Dyeability of Cotton and Silk Fabrics with Natural Dye from Brown Seaweeds *Sargassum* sp." *International Journal of Applied and Natural Sciences.* Vol. 5, No. 5, 2016, pp. 19 – 28.

3. **SILVER Medal** at IID 2009: Inventions, Innovations and Designs, UiTM, Shah Alam.
   "DYEING OF POLYESTER BY USING REACTIVE DYES"

4. **BRONZE Medal** at IID 2009: Inventions, Innovations and Designs, UiTM, Shah Alam.
   "TREATMENT TO IMPROVE DIMENSIONAL STABILITY OF COTTON KNITTED FABRIC"

5. **BRONZE Medal** at IID 2009: Inventions, Innovations and Designs, UiTM, Shah Alam.

"DYES FROM MICROORGANISM"

6. **BRONZE Medal** at IID 2009: Inventions, Innovations and Designs, UiTM, Shah Alam.

   "NANO COLORANT FROM MELASTOMA MALABATHRICUM L. AND DICRANOPTERIS LINEARIS PLANT"

7. **SILVER Medal** at IID 2008: Inventions, Innovations and Designs, UiTM, Shah Alam.

   "NANO-SIZED ROCKS' COLORANTS FOR POLYESTER FIBER"

8. **SILVER Medal** at IID 2008: Inventions, Innovations and Designs, UiTM, Shah Alam.

   "4 IN 1 COLOURED NATURAL DYE SOURCES"

9. **SILVER Medal** at IID 2007: Inventions, Innovations and Designs, UiTM, Shah Alam.

   "COLORS FROM PLANTS AND SOILS FOR MIX-MEDIA PAINTINGS"

10. **SILVER Medal** at IID 2007: Inventions, Innovations and Designs, UiTM, Shah Alam

    "THE APPLICATION OF ULTRASOUND DYEING USING NATURAL DYES"

11. **SILVER Medal** at 34th International Exhibition of Inventions, New Techniques and Products of Geneva 2006, Geneva, Switzerland

    "BATIK DISCHARGE PRINTING ON LYOCELL, LINEN (FLAX), POLYESTER AND POLYESTER/COTTON BLENDS FABRICS"

12. **GOLD Medal** at Biotechnology Asia 2006, PWTC, Kuala Lumpur

    "COLORANT FROM ROCKS/SOILS"

13. **SILVER Medal** at IID 2006: Inventions, Innovations and Designs, UiTM, Shah Alam

    "COLORANT FROM ROCKS/SOILS"

14. **SILVER Medal** at the BIS 2006: The British Invention Show, London, England, UK

    "NATURAL DYES FROM WASTE PLANTS**"**

15. **SAINTIS CEMERLANG 2005**, Kementerian Pengajian Tinggi Malaysia

16. **BEST POSTER PRESENTATION AWARD**, Conference on Scientific & Social Research 2005 Proceedings (CSSR 2005), Kuala Terengganu, Malaysia, 9-12 June 2005

    "PHYSICAL PROPERTIES OF COMPOSITES MADE FROM COTTON WASTES"

17. **SILVER Medal** at IPTA R&D Expo 2005, PWTC, Kuala Lumpur

    "BATIK DISCHARGE PRINTING ON LYOCELL, LINEN (FLAX), POLYESTER AND POLYESTER/COTTON BLENDS FABRICS"

18. **SILVER Medal** at 33rd International Exhibition of Inventions, New Techniques and Products of Geneva 2005, Geneva, Switzerland

    "NON-WAX RESIST AGENT FOR BATIK PRINTING"

19. **SILVER Medal** at IID 2004: Inventions, Innovations and Designs, UiTM, Shah Alam

    "NON-WAX RESIST AGENT FOR BATIK PRINTING"

Publications

1. Nabila Talib, Mohd Rozi Ahmad, **Muhammad Ismail Ab Kadir**, Khudzir Ismail, Ahmad Faiz Che Rahim. "Optimization of Supercritical CO_2 Natural Dye Extraction from Brown Seaweed (*Sargassum Sp.)* via Response Surface Methodology". *International Journal of Engineering & Technology*, Vol. 7 (3.11), 2018. pp 105-108

2. **Muhammad Ismail Ab Kadir**, Mohd Rozi Ahmad and Asmida Ismail. "Partial Characterisation and Colorimetric Characteristics of Sargassum sp. Colorant on Treated Polyester Fabric with Dendrimer." *Key Engineering Materials.* Vol. 737, 2017, pp 329-334. doi:10.4028/www.scientific.net/KEM.737.329

3. **Muhammad Ismail Ab Kadir**, Mohd Rozi Ahmad, Asmida Ismail, Habibah Abdul Jabbar. "Investigations on the Cytotoxicity, Neurotoxicity and Dyeing Performances of Natural Dye Extracted from Caulerpa lentillifera and Sargassum sp. Seaweeds." *Advances in Applied Sciences*. Vol. 1, No. 3, 2016, pp. 46-52. doi: 10.11648/j.aas.20160103.11

4. **Muhammad Ismail Ab Kadir**, Mohd Rozi Ahmad & Asmida Ismail, "The Effect of Cationic Surfactant Treatment on the Dyeability of Cotton and Silk Fabrics with Natural Dye from Brown Seaweeds Sargassum sp." International Journal of Applied and Natural Sciences. Vol. 5, No. 5, 2016, pp. 19 – 28.

5. Tengku Muna Shaheera Tuan Zainal Abidin, Mohd Rozi Ahmad, **Muhammad Ismail Ab Kadir**, Nor Juliana Mohd Yusof & Wan Yunus Wan Ahmad, "Ultrasound Dyeing Of Polyester Using Natural Colorant From *Melastoma Malabathricum L.*" *Advanced Materials Research,* Vol.1134, 2015, pp. 66 – 69.

6. Atiqah Idris, Mohd Rozi Ahmad, **Muhammad Ismail Ab Kadir** & Wan Yunus Wan Ahmad, "Ultrasonic Dyeing of Silk Fabric with *Dirinaria picta* Lichen Species". *Advanced Materials Research,* Vol.1134, 2015, pp. 70 - 74.

7. Nor Atiqah Mohamed, Mohd Rozi Ahmad, **Muhammad Ismail Abd Kadir**, Asmida Ismail & Wan Yunus Wan Ahmad. "Dyeing of Silk Fabric with Extracted Dyes from Lichens". *Advanced Materials Research*, Vol.1134, 2015, pp. 165 – 170.

8. W.Y. Wan Ahmad, M.A. Mohd Nor, N. Saim, **M.I. Ab Kadir** & M.R. Ahmad. "Nano Natural Dyes from Melastoma Malabathricum L.". *Advanced Materials Research* Vol. 545, 2012, pp 59 – 63.

9. Wan Yunus Wan Ahmad, Razis Rahim, Mohd Rozi Ahmad, **Muhammad Ismail Ab Kadir**, Mohd Iqbal Misnon. "The Application of *Gluta Aptera* Wood (Rengas) as Natural Dye on Silk and Cotton Fabrics". *Universal Journal of Environmental Research and Technology*, Vol.1. Issue 4, 2011, pp. 454 – 551.

10. Wan Yunus Wan Ahmad, **Muhammad Ismail Ab Kadir**, Textile wet Processing: A Laboratory Course 1. University Puclication Centre (UPENA), Universiti Teknologi MARA, Shah Alam, 2008.

11. W.Y. Ahmad, J. Salleh, M.F. Yahya, **M I Abdul Kadir**, and M.I.Misnon, "Some Properties of Kenaf and Kenaf Combined Waste Composites" in M. Miraftab, A.R. Horrocks (Eds), Ecotextiles: The Way Forward for Sustainable Development in Textiles, CRC Press, New York, 2007, pp. 128 – 135.

Conference Proceedings

1. Habibah Abdul Jabbar, Nor Azlin Hamidon, **Muhammad Ismail Ab Kadir**, Abdul Razak Abdul Jabbar & Mohd Rozi Ahmad. "Inovasi Struktur Tenunan Dalam Penghasilan Kain Tenun Pahang Diraja". Proceeding of the 2nd International Conference on Creative Media, Design & Technology (REKA2016), Universiti Sains Malaysia, Malaysia. 26 – 27 Sept 2016.

2. Nabila Talib, Mohd Rozi Ahmad, **Muhammad Ismail Ab Kadir**, Khudzir Ismail, "Comparison of Supercritical Fluid Extraction and Ultrasound-assisted Extraction of Natural Dyes from a Brown Seaweed (*Sargassum* spinosum)". Proceeding of the World Conference on Engineering and Applied Sciences (WCEAS2016), Kuala Lumpur, Malaysia. 28 – 29 May 2016.

3. **M.I. Ab Kadir**, W.Y. Wan Ahmad, M.R. Ahmad, M.I. Misnon, W.S. Ruznan, H. Abdul Jabbar, K. Ngalib, & A. Ismail. "Utilization of Eco-Colourant from Green Seaweed on Textile Dyeing". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 6, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.79 – 84.

4. **M.I. Ab Kadir**, W.Y. Wan Ahmad, M.R. Ahmad, H. Abdul Jabbar, K. Ngalib, & A. Ismail. "Dyeing Properties and Absorption Study of Natural Dyes from Seaweeds, Kappaphycus alvarezii". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 6, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.99 – 105.

5. Wan Yunus Wan Ahmad, Tengku Muna Shaheera Tuan Zainal Abidin, Mohd Rozi Ahmad, **Muhammad Ismail Ab Kadir**, and Nor Juliana Mohd Yusof. "Dyeing of Polyester Using Natural Colorant from Melastoma *malabathricum* L". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 6, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.85 – 88.

6. N.A. Mohamed, W.Y. Wan Ahmad, K. Ngalib, M.R. Ahmad, **M.I. Ab Kadir**, and A. Ismail. "Microwave-Enzyme-Assisted Extraction and Dyeing of Lichen Species: *Parmotrema praesorediosum*". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 6, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.89 – 94.

7. Nor Hidayah Abu Hayam, Mohd Rozi Ahmad, Wan Yunus Wan Ahmad & **Muhammad Ismail Ab Kadir**. "Tensile Strength and Evenness of Kenaf/Polyester Blended Rotor-Spun Yarn". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 7, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.37-41.

8. W.Y. Wan Ahmad, N. Md Noor, M.R. Ahmad & **M.I. Ab Kadir**. "Microwave-Assisted Extraction as a Rapid Extraction to Produce Natural Dyes from Pycnoporus sanguineus Mushroom". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 6, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.95 – 98.

9. W.Y. Wan Ahmad, M.R. Ahmad, and **M.I. Ab Kadir**. "Dyeing of Polyester and Polyester Microfibre with Natural Dye from Bacteria Source". Proceeding of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014), Chapter: 6, Publisher: Springer Singapore, Editors: Mohd Rozi Ahmad, Mohamad Faizul Yahya, pp.119 – 123.

10. W.S.Ruznan, N.J.M. Yusof, M.K.M. Yusoh, **M.I.A. Kadir**, M.I. Misnon, W.Y.W. Ahmad, M.R. Ahmad, D.H. Azmi, N.A. Ahmad. "The Effect of Household Fabric Softener on Flame Resistance of Cellulosic Fabrics". Proceeding of the IEEE Symposium on Humanities, Science and Engineering Research (SHUSER2012), 2012, pp. 759 – 761.

11. M.I. Misnon, S.A. Bahari, M.R. Ahmad, W.Y.W. Ahmad, J. Salleh, **M.I.A. Kadir**, "The Properties of Agricultural Waste Particle Composite Reinforced with Woven Cotton Fabric". Scientific Research Journal, Vol. 7, No 2, Dec 2010.

12. W. Y. W. Ahmad, W. S. Ruznan, H. A. Hamid, **M. I. A. Kadir**, M. K. M. Yusoh, and M. R. Ahmad, "Nano-Sized Natural Colorants from Rocks and Soils, " AIP Conference Proceedings March 11, 2010, Vol. 1217,Issue 1, pp. 515-517.

13. W. Y. Wan Ahmad, W. S. Ruznan, **M. I. Ab Kadir**, M. Rozi Ahmad, H. Abdul Hamid. "Polyester Coloration Using Nano-Size Natural Colorant From Rocks". Proceeding of the 5th International Conference of Textile Research Division, National Research Centre, Cairo, Egypt. Vol. 5, Issue 9, 6 – 8 April 2008, pp. 505 – 508.

14. W.Y. Wan Ahmad, J.Salleh, H. Abdul Hamid, M.K. Amran, **M.I.A. Kadir**, *Colorants from Rocks/Soils*, Proceedings of National Seminar on Science Technology & Social Science (STSS), Kuantan, May, 2006

15. W.Y. Wan Ahmad, J. Salleh, M.R. Ahmad, H. Abdul Hamid, M.K. Amran, **M.I.A. Kadir**, P. Amin and N. Abdullah, **Invited Speaker**, *Technological Innovation of Batik at UiTM*, KLIB 2005 Kuala Lumpur International Batik Conference and Exhibition, PWTC, KL December 2005

16. W. Y. Wan Ahmad, M.R. Ahmad, P. Amin, **M.I.A. Kadir**, and N. Abdullah. *New Techniques and Materials for Batik Printing* Colloquium on Textile & Apparel Technology 2004 Proceedings, Fakulti Sains Gunaan, UiTM Shah Alam. 22 July 2004

17. W.Y. Wan Ahmad, M.R. Ahmad, **M.I.A. Kadir**, *'Batik Discharge Printing On Silk, Polyester And Polyester/Cotton Blends'* In Proceedings of National Seminar on Science Technology & Social Science (STSS), Kuantan, 31 May-1 Jun, 2004

18. W.Y. Wan Ahmad, J. Salleh, M. R. Ahmad and **M.I.A. Kadir**, *Some Properties of Kenaf and Kenaf /Cotton Combing Wastes Composites*, In Proceedings of National Seminar on Science Technology & Social Science (STSS), Kuantan, 31 May-1 Jun, 2004

19. **M.I.A. Kadir** and W.Y. Wan Ahmad, *Batik Discharge Printing*, In Proceedings of National Seminar on Science Technology & Social Science (STSS), Kuantan, 31 May-1 Jun, 2004

Research interests

Natural Dyes, Batik, Textile Colorations

Research Grants

TITLE	GRANT TYPES	GRANTING AGENCIES	AMOUNT (RM)	ROLE
DYEABILITY OF TEXTILE SUBSTRATES WITH SEAWEED COLORANTS	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	105,500.00	MEMBER
DEVELOPMENT OF SMART KNITTED FABRICS FROM SHAPE MEMORY ALLOY CORE-SHEATH FRICTION SPUN YARNS	PROTOTYPE RESEARCH GRANT SCHEME (PRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	190,000.00	MEMBER
STRUCTURAL PARAMETERS AND PROPERTIES OF KENAF/COTTON BLENDED SPUN YARNS PRODUCED VIA ROTOR SPINNING	E-SCIENCE FUND	MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MALAYSIA	120,800.00	MEMBER
COLOURFASTNESS CHARACTERISTICS OF ULTRASOUND MELASTOMA MALABATHRICUM L. EXTRACTED DYED POLYESTER	RESEARCH ACCULTURATION GRANT SCHEME (RAGS)	UNIVERSITI TEKNOLOGI MARA, MALAYSIA	80,000.00	MEMBER
THE EXAMINATION OF EXTRACTED NATURAL COLORANTS FROM SEAWEED	EXPLORATORY RESEARCH GRANT SCHEME (ERGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	160,000.00	PROJECT LEADER
COLOURFASTNESS CHARACTERISTICS OF LICHEN COLOURED FABRICS	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	99,750.00	MEMBER
ECO-FRIENDLY ARTWORKS COLORANTS FROM AGRO WASTES	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	50,000.00	MEMBER
THE FEASIBILITY STUDY OF DISTINCTIVE VEGETATIONS IN TAMAN NEGARA AS UNIQUE MALAYSIAN NATURAL DYE SOURCES	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	45,000.00	PROJECT LEADER
FUNDAMENTAL STUDY ON THE PROCESS PARAMETERS FOR SPINNING OF CORE-SHEATH CONDUCTIVE FRICTION YARNS	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	35,200.00	MEMBER
PINEAPPLES LEAVES AS A BATIK MATERIAL	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	40,000.00	MEMBER

EASY CARE FINISH FOR COTTON AND RAYON BATIK FABRICS	E-SCIENCE FUND	MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MALAYSIA	173,000.00	MEMBER
DYEING OF TEXTILES USING COLOUR EXTRACTED FROM LOCAL BACTERIAL ISOLATES	E-SCIENCE FUND	MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MALAYSIA	207,050.00	MEMBER
THE APPLICATION OF ULTRASOUND DYEING ON NATURAL DYES FROM LICHEN	RESEARCH EXCELLENCE FUND	UNIVERSITI TEKNOLOGI MARA, MALAYSIA	20,000.00	MEMBER
THE MECHANICAL PROPERTIES OF COMPOSITE REINFORCED TREATED BANANA AND PINEAPPLE FIBRES	RESEARCH EXCELLENCE FUND	UNIVERSITI TEKNOLOGI MARA, MALAYSIA	10,000.00	MEMBER
COLORANTS FROM SOIL/ROCKS	FOUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	MINISTRY OF HIGHER EDUCATION, MALAYSIA	40,000.00	PROJECT LEADER
DEVELOPMENT OF NATURAL DYES FROM WASTE PLANTS	E-SCIENCE FUND	MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MALAYSIA	185,950.00	MEMBER
THE CONVERSION OF PINEAPPLE LEAVES TO WHITE FABRIC	-	MALAYSIA PINEAPPLE INDUSTRY BOARD	47,000.00	MEMBER
DEVELOPMENT OF PROTECTIVE CLOTHING SYSTEMS FOR PROTECTION AGAINST SHARP AND POINTED WEAPONS	E-SCIENCE FUND	MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MALAYSIA	207,050.00	MEMBER
BATIK DISCHARGE PRINTING ON LYOCELL, LINEN (FLAX), PLOLYESTER AND POLYESTER/COTTON BLEND FABRICS	-	UNIVERSITI TEKNOLOGI MARA, MALAYSIA	38,000.00	MEMBER
THE SUBSTITUTION OF WAX WITH NON WAX RESIST AGENT IN HAND DRAWN BATIK	-	UNIVERSITI TEKNOLOGI MARA, MALAYSIA	17,000.00	MEMBER

Patents

1. Non-wax Resist Agent, Malaysian Patent No. PI20054060, 30th August 2005, P. Amin, N.A. Abdullah

2. Utility Innovation (UI UI2010004955) "A Method For Polyester Fabrics Using Colorant Extracted From Chomobacterium Violaceum", 2010

3. Utility Innovation (UI 2010005139) "A Method for Producing Nano Size Natural Dye", 2010

4. Natural Printing Paste, Malaysian Patent No. PI 20062959, 22nd June 2006
W.Y. Wan Ahmad, **M.I. Abd Kadir**, A. J. Abdul Kadir, H. Abdul Hamid, J. Salleh.

5. Batik Discharge Printing, Malaysian Patent No. PI 20061551, 6th April 2006
W.Y. Wan Ahmad, **M.I. Abd Kadir**, J. Salleh, M.R. Ahmad