Curriculum Vitae

Name : Dr. Hazri B. Bakhtiar

IC. Numbers: 680508-01-5943 (A 0989842)

Nationality : Malaysian

Date and Place of Birth: 08-05-1968, Kota Tinggi, Johor.

Office Address : Jabatan Fizik, Fakulti Sains, Universiti Teknologi Malaysia,
81310 UTM, Skudai, Johor.

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Academic Qualification:

1. Diploma of French Language - Communication
   Centre Linguistique de la langue Française – CAVILAM, Vichy, France (1989)

2. Bac. of Physic-Informatic-Electronic,
   Univ. Of Metz, France (1992)

3. Bac. of Pure Physics - Physics of Particle,
   Univ. Of Metz, France (1994)

4. Master of Pure Physics - Physics of Particle,
   Univ. Of Metz, France (1995), Master Project:
   Study and Electrical Conduction Characterization of Cu-Ag Alloy – Resistivity, Absolute Thermodynamic Power in Function of Atomic Percentage and High Temperature.

5. Diplôme Etude Approfondi (DEA – Pra PhD) - Physics of Matters
   Technopôle Metz 2000 – Univ. Of Metz, France. (1996), DEA Project
   Spectroscopy Characterization of Boron Nitride BN – Diffusion, Diffraction, Raman….

6. Doctorat en electronique (Doctor of Philosophy – PhD Electronic)
   Technopôle Metz 2000 – Univ. Of Metz, France. (1999)
   Characterization of Submicron MOS Structures and Analysis of Defects Induced by Gamma Radiation. Extrapolation of Defects Induced in Passivation Oxides in Bipolar Transistors.

Title of Position Held: Tutor since 2nd October 1995 – 2nd May 1996
Lecturer since 3rd May 1996 – 26 Dec. 2005
Senior Lecturer since 27 Dec. 2005 – 22 Sept. 2008
Associate Prof. since 23 Sept. 2008

Research Interest

1. Microelectronic, Radiation & Hardness Study
2. Laser and Non-Linear Optic Application
3. Electronic and Optoelectronic Devices
4. Optical Fiber Sensors

Research Activities:

1. **Study and Electrical Conduction Characterization of Cu-Ag Alloy – Resistivity, Absolute Thermodynamic Power in Function of Atomic Percentage and High Temperature**
   Major output : New setup experimental oven has been developed (1994 –1995)
   (Master student under Institut de Physique et d'Electronique de Metz – IPEM Grant, Prof. Dr. J.G Gasser)

2. **Spectroscopy Characterization of Boron Nitride BN – Diffusion, Diffraction, Raman**
   Major output: Spectroscopy characterization with low temperature, from 0 to 200 K. This study concluded that best structure of BN for electronical and mechanical application is BN-cubic. (1995 –1996) (Pra-PhD student under Institut de Physique et d'Electronique de Metz – IPEM Grant, Prof. Dr. Michael Certier)

3. **Characterization of Submicron MOS Structures and Analysis of Defects Induced by Gamma Radiation. Extrapolation of Defects Induced in Passivation Oxides in Bipolar Transistors.**
   Major output: A support chip for nLDD-MOSFET technology of 0.6μm has been developed. . Research under LICM, University of Metz and MATRA-TEMIC Semiconductor. (1996 –1999) (PhD Student under MATRA-TEMIC Grant, Prof. Dr. Jean-Pierre Charles, France)

4. No. Vot Penyelidikan : 71712, Jangka Pendek. **Construction of a High Precision Resistivity System for a Measurement at Low Temperatures**. (2001 – 2002) (Penyelidik).

5. No. Vot Penyelidikan : 74008, RM 300,000.00 / IRPA RM8 (Bottom Up) **Controlling optical Phase by laser Ablative Figuring** (2002-2005) (Penyelidik)

6. Project No. 09-02-06-0000 SR0006/06-01, Vote No. 74529 (RM5,010,032) IRPA RM 8 (Top down) – **Development of Crystal Growth for Advanced Optical Crystal** (2002 – 2007, extend the duration till Feb. 2008) (Penyelidik).

7. Project No. 09-02-06-0067-SR0000, Vote No. 74531 (RM1,440,032.00) IRPA RM 8 (Top down) – **Design and Construction of a Q-switched Nd:YAG laser for medical used.** (2002 – 2007, extend the duration till Feb. 2008) (Penyelidik).

8. Project No. 09-02-06-0068-SR0000, Vote No. 74532 (RM1,415,000.00) IRPA RM 8 (Top down) – **Design and Construction of tunable Er-Glass laser for Sciences and Metrological application.** (2002 – 2007, extend the duration till Feb. 2008) (Penyelidik).

9. Project No. 09-02-06-0069-SR0000, Vote No. 74533 (RM1,440,032.00) IRPA RM 8 (Top down) – **Design and Construction of Mode Locked Ti:Sapphire Laser Pump by Diode**. (2002 – 2007, extend the duration till Feb. 2008) (Penyelidik).

10. Project No. 09-02-06-0156-SR0013/06-01, Vote No. 74541 (RM1,905,240.00) IRPA RM 8 (Top down) – **The Growth of Gallium Arsenide Quantum Dots Using MOVPE and Their Development For Single-Electron Transistors.** (2004 – 2007, extend the duration till Feb. 2008) (Penyelidik)

11. Project No. 09-02-06-0158-SR0013/06-03, Vote No. 74543 (RM1,386,640.00) IRPA RM 8 (Top down) – **The Structural and Optical Characteristic Studies of Quantum Nanostructures For Single-Electron Transistors.** (2004 – 2007, extend the duration till Feb. 2008) (Penyelidik).

12. UTM0002482 eScience Fund, **Radiation and Stress Effects on Nano MOSFETs**. Pending (Leader).

13. Q.J130000.2526.04H15 GUP1 (RM 120,000), **Laser surface alloying on aluminum** (Dec. 2012 – Dec. 2014) (Researcher)

14. Q.J130000.2526.02H79 GUP1 (RM 65,000)**, A High Power Diode Pumped Vanadate Laser System,** (May 2012 – April 2014) (Researcher)

15. R.J130000.7826.4F110 FRGS (RM 104,000), **Determination of Hydrocarbon Level in Water by Laser Induced Acoustic Technique,** (April 2012 – March 2014) (Researcher)

16. FRGS 20/12/2012 - 20/02/2013, **808 nm Diode Laser radiated on Diabetic Rat Model.** (Researcher).

17. Q.J130000.2626.02J70 GUP2 (RM40,000), **Ultra-Fast Laser Modeling Of Ti:Sapphire Laser,** (April 2011 – July 2012) (Leader)

18. Q.J130000.2409.00G79 Flagships (RM 200,000), Synthesis Gold Nanoparticles via Synchrotron Radiation, (April 2013 – Jun 2014) (Researcher).

19. Q.J130000.2526.03H89 GUP1 (RM 102,000), **Femtosecond Laser Ablation for Micro and Nano-Structuration,** (Jan 2012 – Dec. 2014) (Leader).

20. Q.J130000.2526.04H56 GUP1 (RM 102,000), **Fibre Optic Sensors for Refractive Index of Liquids Using the OTDR Technique,** (Jan 2012 – Dec. 2014) (Leader).

21. R.J130000.7809.4F543 FRGS (RM 129,000), **Synthesize Gold Nanoparticles by Laser Ablation,** (July 2014 – Jun 2016) (Researcher)

22. Q.J130000.2509.08H40 GUP2 (RM 45,100), **Fiber Optic Sensors for Detection of Acoustic Signals in Various Aqueous Media**, (April 2014 – March 2016) (Leader).

23. Q.J130000.2509.06H45 GUP1 (RM 60,000), **White Light Effect on Hydrogen Production from Water Electrolysis**, (April 2014 – March 2015) (Researcher).

24. R.J130000.7809.4L621 PRGS (RM 156,000), P**rototype Diode Pumped Solid State Laser Devices,** (August 2013 – July 2015) (Researcher)

Honours and Awards:

1. Anugerah Penghargaan Tesis PhD - Electronic oleh Panel Université de Metz - LICM-SUPELEC, Technôpole Metz 2000, Metz, France, Nov. 1999

2. Anugerah Kertas Kerja dalam Jurnal Kebangsaan Hari Penerbitan UTM 2002– Hadiah Penghargaan, **Hazri Bakhtiar**, Ali Soltani, Cyril Picard, Alain Hoffmann and Jean-Pierre Charles, ***Parameter Extraction and Geometry Effects on the Electronical Properties of Submicron MOS Transistors***, J. Fizik UTM, Jilid 8, Bil.1 (2001) 1 – 22

3. Anugerah Khidmat Cermelang UTM tahun 2006.

4. Anugerah Khidmat Cermelang UTM tahun 2008

5. Bronze Award For the Invention/Innovation of ***Compact Diode Pumped Solid State Laser Kit*** at the 13th lndustrial Art and Technology Exhibition (INATEXI2011),16 – 18 Nov. 2011, Dewan Sultan lskandar, UTM, Johor Bahru

6. Silver Award For the invention/innovation of ***New Flashlamp Power Supply*** at the 13th lndustrial Art and Technology Exhibition (INATEXI2011),16 – 18 Nov. 2011, Dewan Sultan lskandar, UTM, Johor Bahru.

7. Gold Medal For the Invention/Innovation of ***Compact Diode Pumped Solid State Laser Kit*** at the Malaysia Technology Expo 2012, Malaysian Association of Research Scientists (MARS),16 – 18 February. 2012, Kuala Lumpur.

8. Gold Medal For the Invention/Innovation of ***New Flashlamp Driver*** at the Malaysia Technology Expo 2012, Malaysian Association of Research Scientists (MARS),16 – 18 February. 2012, Kuala Lumpur.