

# CURRICULUM VITAE



A. BUTIR-BUTIR PERIBADI <i>(Personal Details)</i>			
Nama Penuh <i>(Full Name)</i>	CHAN KAR TIM		Gelaran <i>(Title)</i> : Dr.
No. MyKad / No. Pasport <i>(Mykad No. / Passport No.)</i> 800111-06-5321	Warganegara <i>(Citizenship)</i> MALAYSIAN	Bangsa <i>(Race)</i> CHINESE	Jantina <i>(Gender)</i> MALE
Jawatan <i>(Designation)</i>	SENIOR LECTURER	Tarikh Lahir <i>(Date of Birth)</i>	11-01-1980

Alamat Semasa <i>(Current Address)</i>	Jabatan/Fakulti <i>(Department/Faculty)</i>	E-mel dan URL <i>(E-mail Address and URL)</i>
No 17, Laman Serdang, Jln LS 13/4, Taman Bukit Serdang, Seksyen 13, 43300 Seri Kembangan.  Tel:	Department of Physics, Faculty of Science, Universiti Putra Malaysia, 43400 Serdang, Selangor Darul Ehsan Malaysia  Tel: 03-97697932 Fax: -	E-mail: <a href="mailto:chanki@upm.edu.my">chanki@upm.edu.my</a>  URL:  H/P: 016-2022137

B. KELAYAKAN AKADEMIK <i>(Academic Qualification)</i>			
Nama Sijil / Kelayakan <i>(Certificate / Qualification obtained)</i>	Nama Sekolah Institusi <i>(Name of School / Institution)</i>	Tahun <i>(Year obtained)</i>	Bidang pengkhususan <i>(Area of Specialization)</i>
Doctor of Philosophy (Ph.D)	Universiti Putra Malaysia	2014	Quantum Science and Technology
Master of Science	Universiti Putra Malaysia	2009	Applied Optics
B. Sc. (Honours)	Universiti Putra Malaysia	2003	Physics

C. KEMAHIRAN BAHASA <i>(Language Proficiency)</i>					
Bahasa / Language	Lemah <i>Poor (1)</i>	Sederhana <i>Moderate (2)</i>	Baik <i>Good (3)</i>	Amat Baik <i>Very good (4)</i>	Cemerlang <i>Excellent (5)</i>
English				√	
Bahasa Melayu				√	
Chinese			√		
Lain-lain <i>(other)</i> :					

<b>D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN</b> ( <i>Scientific experience and Specialisation</i> )				
<i>Organization</i>	<i>Position</i>	<i>Start Date</i>	<i>End Date</i>	<i>Expertise</i>
The International Academy of Science and Engineering for Development (IASSED)	Member	2017		Mathematical Physics
Malaysian Institute of Physics	Life Member	2016		Mathematical Physics
Persatuan Sains Matematik Malaysia (PERSAMA)	Life Member	2015		Mathematical Physics
International Association of Computer Science and Information Technology (IACSIT)	Member	2015		Mathematical Physics
Institute For Mathematical Research	Research Associate	2014	2019	Mathematical Physics
Persatuan Pegawai Akademik UPM	Life Member	2014		
Persatuan Alumni UPM	Member	2009		
Malaysian Society for Solid State Science & Technology	Life Member	2004		Mathematical Physics
Kelab Warga Fizik	Member	2004		Mathematical Physics

<b>E. PEKERJAAN</b> ( <i>Employment</i> )				
<i>Majikan / Employer</i>	<i>Jawatan / Designation</i>	<i>Jabatan / Department</i>	<i>Tarikh lantikan / Start Date</i>	<i>Tarikh tamat / Date Ended</i>
Universiti Putra Malaysia	Tutor	Physics	01/12/03	08/01/14
Enviroterm Sdn. Bhd.	Technical Sales Engineer	-	01/09/03	01/11/03
RFM Fasteners (M) Sdn. Bhd.	Specification Engineer	-	01/05/03	01/08/03

<b>F. ANUGERAH DAN HADIAH</b> ( <i>Honours and Awards</i> )				
<i>Name of awards</i>	<i>Title</i>	<i>Award Authority</i>	<i>Award Type</i>	<i>Year</i>
<i>Academic Awards</i>	SLAI Scholarship	MOHE Malaysia	National	2009
<i>Academic Awards</i>	Pameran Rekacipta, Penyelidikan dan Inovasi	UPM	Silver Medal	2006
<i>Non-Academic Awards</i>				
<i>Awards of Merit</i>				

<b>G. SENARAI PENERBITAN</b> (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) ( <i>List of publications – author (s), title, journal, volume, page and year published</i> )
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Mohd Azizul Zainal, and Chan, Kar Tim and Hishamuddin Zainuddin, and Nurisya Mohd Shah, and Ooi, Raymond Chong Heng *First principles study of toxic gas molecules adsorption on group IVA (C, Si, Ge) 2-dimensional materials. Sains Malaysiana*, 52 (2). pp. 625-639. ISSN 0126-6039

Choong, P. S., Zainuddin, H., Chan, K. T., & Said Husain, S. K. (2023). Special core tensors of multi-qubit states and the concurrency of three lines. *Quantum Information Processing*, 22(5). doi: 10.1007/s11128-023-03939-w

Adamu, S., Halimah, M., Chan, K., Muhammad, F., Nazrin, S., Scavino, E., . . . Ghani, N. (2022). Structural, Prediction and Simulation of Elastic Properties for Tellurite Based Glass Systems Doped with Nano and Micro Eu2O3 particles via Artificial Neural Network Model. *Journal of Materials Research and Technology*.

Alzahrani, J. S., Midala, I. H., Kamari, H. M., Al-Hada, N. M., Tim, C. K., Nidzam, N. N. S., . . . Al-Buriahi, M. (2022). Effect of Calcination Temperature on the Structural and Optical Properties of (ZnO) 0.8 (ZrO2) 0.2 Nanoparticles. *Journal of Inorganic and Organometallic Polymers and Materials*, 1-11.

Geidam, I., Matori, K., Halimah, M., Chan, K., Muhammad, F., Ishak, M., . . . Hamza, A. (2021). Thermo-physical and elastic properties of Bi2O3 doped silica borotellurite glasses. *Optik*, 248, 168201.

Halimah, M., Tafida, R., Chan, K., & Muhammad, F. (2021). A comparative study of the experimental and the theoretical elastic data of silver oxide incorporated zinc tellurite glass system doped with Sm3+ Nps ions. *Optik*, 238, 166536.

Hamid, M. A. B., Chan, K. T., Ooi, C. H. R., Zainuddin, H., Shah, N. M., & Nidzam, N. N. S. (2021). Structural stability and electronic properties of graphene/germanene heterobilayer. *Results in Physics*, 28, 104545.

Rusli, M., Shah, N. M., Zainuddin, H., & Tim, C. K. (2021). Isomorphism of Analytical Spectrum between Noncommutative Harmonic Oscillator and Landau Problem. *arXiv preprint arXiv:2101.05929*

Choong, P. S., Zainuddin, H., Chan, K. T., & Husain, S. K. S. (2020). Higher-order singular value decomposition and the reduced density matrices of three qubits. *Quantum Information Processing*, 19(9), 1-21.

Nadhira, A., Nurisya, M., & Chan, K. (2020). Morse potential in noncommutative quantum mechanics framework. *Advances in Mathematics: Scientific Journal*, 9(12), 10895-10902.

Halimah, M., Awshah, A., Hamza, A., Chan, K., Umar, S., & Alazoumi, S. (2020). Effect of neodymium nanoparticles on optical properties of zinc tellurite glass system. *Journal of Materials Science: Materials in Electronics*, 31(5), 3785-3794.

Tafida, R., Halimah, M., Muhammad, F., Chan, K., Onimisi, M., Usman, A., . . .

	<p>Umar, S. (2020). Structural, optical and elastic properties of silver oxide incorporated zinc tellurite glass system doped with Sm<sup>3+</sup> ions. <i>Materials Chemistry and Physics</i>, 246, 122801.</p> <p>Halimah, M., Hamza, A., Muhammad, F., <b>Chan, K.</b>, Umar, S., Umaru, I., &amp; Geidam, I. (2019). Effect of erbium nanoparticles on structural and spectroscopic properties of bio-silica borotellurite glasses containing silver oxide. <i>Materials Chemistry and Physics</i>, 236, 121795.</p> <p>Halimah, M., Umar, S., <b>Chan, K.</b>, Latif, A., Azlan, M., Abubakar, A., &amp; Hamza, A. (2019). Study of rice husk silicate effects on the elastic, physical and structural properties of borotellurite glasses. <i>Materials Chemistry and Physics</i>, 238, 121891.</p> <p>Umar, S., Halimah, M., <b>Chan, K.</b>, Amirah, A., Azlan, M., Grema, L., . . . Ibrahim, G. (2019). Optical and structural properties of rice husk silicate incorporated borotellurite glasses doped with erbium oxide nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i>, 30(20), 18606-18616.</p> <p>Y. S. J. Liang, K. T. C., H. Zainuddin, N. M. Shah. (2019). Extracting Network Structure for International and Malaysia Website via Random Walk. <i>ASM Sc. J.</i>, 12, <a href="https://doi.org/10.32802/asmscj.32019.32400">https://doi.org/10.32802/asmscj.32019.32400</a>.</p> <p>Hamid, M. A. B., <b>Tim, C. K.</b>, Yaakob, Y. B., &amp; Hazan, M. A. B. (2019). Structural, electronic and transport properties of silicene on graphene substrate. <i>Materials Research Express</i>, 6(5), 055803.</p> <p>Hamza, A., Halimah, M., Muhammad, F., &amp; <b>Chan, K.</b> (2019). Physical properties, ligand field and Judd-Ofelt intensity parameters of bio-silicate borotellurite glass system doped with erbium oxide. <i>Journal of Luminescence</i>, 207, 497-506.</p> <p>Hamza, A., Halimah, M., Muhammad, F., <b>Chan, K.</b>, Usman, A., Faznny, M., . . . Tafida, R. (2019). Structural, optical and thermal properties of Er<sup>3+</sup>-Ag codoped bio-silicate borotellurite glass. <i>Results in Physics</i>, 14, 102457.</p> <p>Kamal, N. N. A., <b>Chan, K. T.</b>, Shah, N. M., Zainuddin, &amp; H. (2019). Dynamical Process On Growing Geometrical Network Based On Modular Group. <i>ASM Sc. J.</i>, 12(Special Issue 1), 276-284.</p> <p>Midala, I. H., Kamari, H. M., Al-Hada, N. M., <b>Tim, C. K.</b>, Muhamad, S., Hamza, A. M., . . . Nuhu, I. M. (2019). Structural, morphological and optical properties of (ZnO) 0.2 (ZrO 2) 0.8 nanoparticles. <i>Applied Physics A</i>, 125(9), 668.</p> <p>Shelawati, T., Nurisya, M., Mazliana, A., &amp; <b>Tim C., K.</b> (2019). Effects of step-potential on confinement strength of strain-induced type-I core-shell quantum dots. <i>Superlattices and Microstructures</i>, 131, 95-103.</p>
Books/Monographs	<p><b>Chan Kar Tim</b> Progressive Assessment Physics: Form 5</p>

	<p>Pustaka Yakin Pelajar Sdn. Bhd. Malaysia, (2007)</p> <p><b>Chan Kar Tim</b> Continual Assessment Physics: Form 4 Pustaka Sistem Pelajaran Sdn. Bhd. Malaysia, (2009)</p> <p><b>Chan Kar Tim</b> Continual Assessment Physics: Form 5 Pustaka Sistem Pelajaran Sdn. Bhd. Malaysia, (2009)</p>
<i>Chapter in book</i>	
<i>Proceedings</i>	<p>I.V. Grozescu, H. Zainuddin, M.Y. Sulaiman &amp; <b>K. T. Chan</b> Single Photon Sources – The “Key” to Quantum Information Proceedings of Conference on Advances in Theoretical Sciences, International Advanced Technology Congress 2005 (CD Proceedings), 6-8 Dec 2005, IOI Marriot Hotel, Putrajaya.</p> <p><b>Chan, K. T.</b>, Grozescu, V. I. and Hishamuddin Z. Development of Single Photon Source. Proceedings of XXII Regional Conference on Solid State Science &amp; Technology (RCSST’ 05), Hyatt Regency Hotel, Kuantan, Pahang, 18-21 December 2005</p> <p><b>Chan, K. T.</b>, Grozescu, V. I., Hishamuddin Z. and Yusof S. Generation and Detection of Single Photon for Quantum Cryptography. Proceedings of Laser and Electro-Optics Seminar, LEOS 2006, Sofitel Palm Resort, Senai, Johor, 28-29 June 2006, pp. 91-95</p> <p><b>Chan, K. T.</b>, Grozescu, V. I., Hishamuddin Z. and Yusof S. Development of Single Photon Source Using Nitrogen Vacancy in Diamonds. Seminar Sains 2007, 4 Ogos 2007, Department of Physics, Universiti Putra Malaysia.</p> <p><b>Chan Kar Tim</b> and Hishamuddin Zainuddin Parallel Computation of Maass Cusp Forms for Modular Group and its Commutator subgroup. 4th Fundamental Science Congress 2012 (FSC2012), 17-18 July 2012, Auditorium Veterinar UPM</p>
<i>Other publications</i>	<p>Module: Hishamuddin Zainuddin, <b>Chan Kar Tim</b>, Nurisya Mohd Shah, Choong Pak Shen, Ganesh Subramaniam, Ahmad Hazazi Ahmad Sumadi and Mohd Hafizuddin Mohd Taha, “Shadow of Geometry in the Physical World” - Program KEM matematik bersama seratas (2016), UPM</p> <p>Module: <b>Chan Kar Tim</b>, “Parking Space Design” – National Science Challenge 2016 (2016), UPM</p>
<i>Computer software</i>	<p>1) Collusion Set Detection In Stock Trading Network Using Mutual Nearest Neighbours in Mathematica.</p>

	<p>Copyright Filing Number: LY2020002276 (Malaysia) Date of Filing: 3 Jul 2020</p> <p>2) Collusion Set Detection In Stock Trading Network Using K- Nearest Neighbours in Mathematica. Copyright Filing Number: LY2020002275 (Malaysia) Date of Filing: 3 Jul 2020</p>
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<b>H. PROJEK PENYELIDIKAN TERDAHULU</b> (Past Research Project)					
<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
<i>ERGS/1-2013/5527178</i>	Discrete Groups, Hyperbolic & Complex Projective Geometry and Quantum States – Novel Constructions and Application	Member	2013	KPM	Completed
<i>FRGS</i>	Symmetric Reduction For Systems of Quantum Information Theory	Member	2015	KPM	Completed
<i>GP-IPM/2014/9445900</i>	Complex Networks Using Fuchsian Groups	Project Leader	2015	UPM	Completed
<i>FRGS</i>	Random Walks on Growing Geometrical Network based on Fuchsian group	Project Leader	2016	KPM	Completed
<i>GP-IPS/2018/9624900</i>	Mean First-Passage Time for Random Walks on Growing Geometrical Network	Project Leader	2018	UPM	Completed
<i>GP-IPS</i>	Deformed Ladder Operators for Two dimensional Morse Oscillator	Member	2018	UPM	Completed
<i>FRGS</i>	Nonlinear Quantum Plasmonics for Ultrafast and Ultraintense Lasers	Member	2017	KPM	On-going
<i>FRGS</i>	Refining Energy Band Structures and Strain Effect on Shell Growth of Type -1 Core/Shell Colloidal Quantum Dots Heterostructures	Member	2019	KPM	Completed
<i>FRGS</i>	Geometrical Aspects of Quantum Entanglement and Uncertainty Principle	Member	2019	KPM	On-going
<i>FRGS</i>	Density Functional Theory Study For Structural Electronic, Transport and Optical Properties of	Project Leader	2020	KPM	On-going

	Heterobilayer From Two Dimensional Materials				
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<b>I. ID PUBLISHING</b> ( <i>Publishing ID</i> )		
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<i>Others</i>		

<b>J. RANGKAIAN SOSIAL</b> ( <i>Social Networking</i> )	
<i>Facebook</i>	-
<i>LinkedIn</i>	-
<i>Researchgate</i>	<a href="https://www.researchgate.net/profile/Kar_Tim_Chan">https://www.researchgate.net/profile/Kar_Tim_Chan</a>
<i>Academia</i>	-
<i>Google Scholar</i>	<a href="https://scholar.google.com/citations?user=82AdE0YAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=82AdE0YAAAAJ&amp;hl=en</a>
<i>Blog</i>	-
<i>Website url</i>	<a href="https://sites.google.com/view/cktpage/home">https://sites.google.com/view/cktpage/home</a>
<i>Others</i>	-