## Color Image Watermarking Researches within Past Five Years

Amir Hesam YARIBAKHT\*, M.S. ABDULLAH\*, Alireza GHOBADI\*

\*Advanced Informatics School (AIS), Universiti Teknologi Malaysia (UTM), Level 5, Menara Razak, Jalan Sultan Yahya Petra, 54100, Kuala Lumpur, Malaysia

hyamir2@live.utm.my, mshahidan@utm.my, ghobadi@soha.com.my

Abstract— In these day and age by fast growing the knowledge and internet, producing, distributing and manipulating of digital date become an easy task to do. Based on the other researcher result, illegal reproduction of digital information reported as the main concerned and a real problem [1, 2]. There are many problems, which arise such as copyright protection, tamper detection, ownership rights and so on [3-6]. This has raised questions and concerns about [4]. Thus, many researchers try to find the solution to addressing these problems. Digital watermarking provides a solution which purpose to solve these problems [5].

Keywords - Image watermark, Robustness, Watermark method, RGB, Human Visual System



Amir Hesam Yaribakht I completed my Bachelor of Information Technology (Software Engineering) at Multimedia University (MMU), Cyberjaya (Malaysia), in 2011; Then, I started my Master in Computer Science (Information Security) at Universiti Teknologi Malaysia (UTM), Kuala Lumpur (Malaysia) which was completed in 2013. Currently, I am doing my Doctor of Philosophy (Computer Science) at Universiti Teknologi Malaysia (UTM), Kuala Lumpur (Malaysia).



Associate Prof Dr Mohd Shahidan Abdullah is currently working as Deputy Dean of Advanced Informatics School at Universiti Teknologi Malaysia. His main research interest includes watermarking, steganography, neural networks, data retrieval process and Artificial Intelligence. He has been involved in theorganization of a number of conferences and workshops. He has been published more than 30 papers in national and International journals and conferences. He has graduated 5 phd students and 20 master students. He is also currently supervising 20 Ph.D students.



Alireza Ghobadi I completed my B.S of Mathematic with Computer Science at Khaje-Nasir-Toosi University, Tehran (Iran), in 1997. Then, I worked in a few companies at the industry level (in the field of IT and semiconductors). Recently, I completed Bachelor of Information Technology (major: Information Systems Engineering) in 2007, First master in Master Of Computer Science (Under fund of Intel Company in Malaysia) in Multimedia university, and Second Master in University Technology Malaysia. Currently, I am doing PHD Of Computer Science and also I am working under a funded project dealing with file management and transmission. I am IEEE member since 2012.