Kanokpoj Areekul 2007: Measurement of He-Ne Laser Wavelength for

Calibration of Metre Standard According to the SI Definition. Master of

Science (Metrology), Major Field: Metrology, Department of Physics.

Thesis Advisor: Associate Professor Bancha Panacharoensawad, Dr.Ing.

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Metrology is a new area of study and research in our country. Standard unit of

length is one of seven basic standard SI units that calibration requirement demand is

50% of all. Calibration of length and related quantities require traceability to the SI.

According to the SI definition of meter in 1983, CIPM recommends (CI-1983) three

methods of meter realization. The possible and accurate method is the application of

interferometer to measure the wavelength of some standard source such as stabilized

HeNe laser. This thesis is proposed to apply scanning confocal Fabry-Perot

interferometer for wavelength measurement.

B. Panacharaensand 28/5/2007 Thesis Advisor's signature