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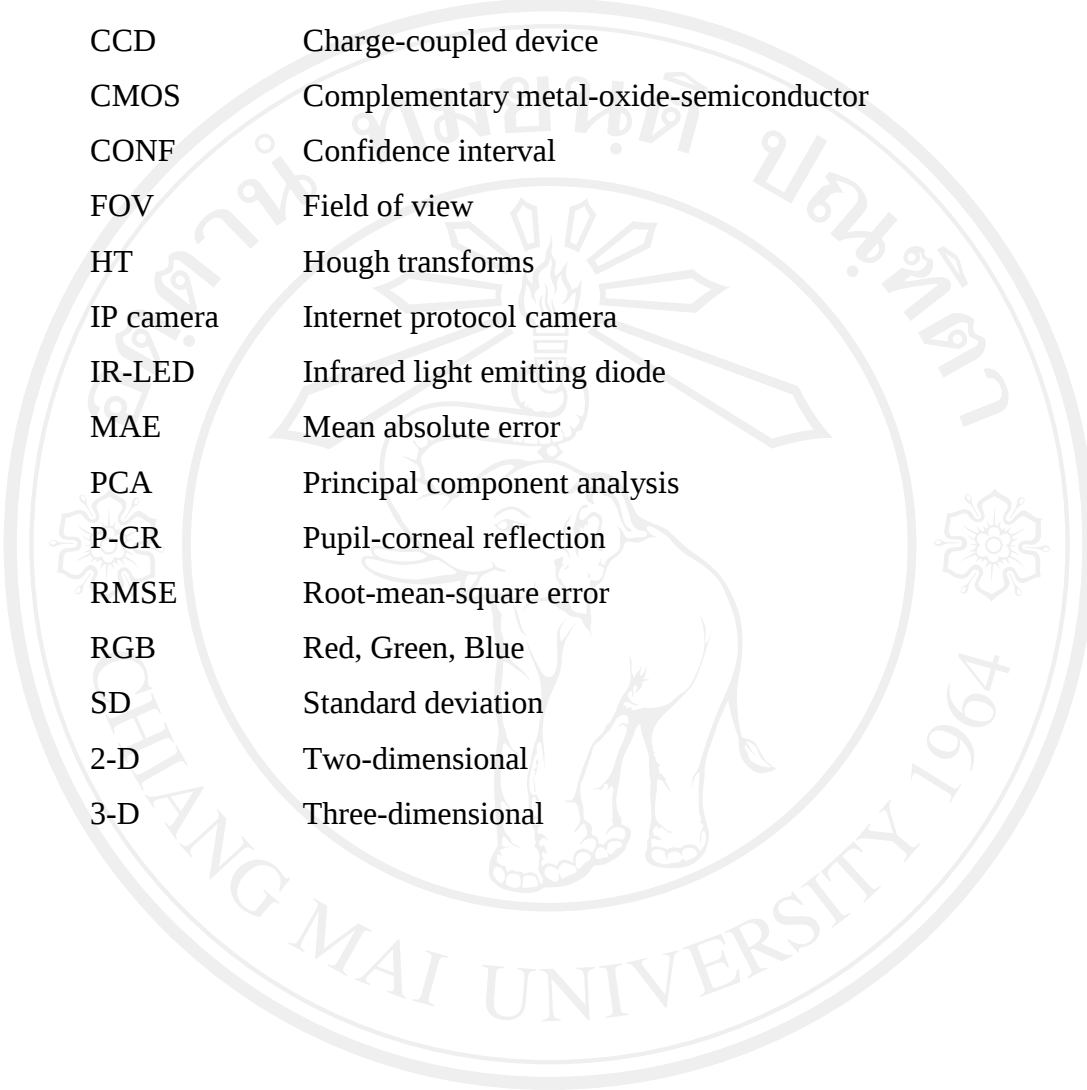
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LIST OF ABBREVIATIONS



CCD	Charge-coupled device
CMOS	Complementary metal-oxide-semiconductor
CONF	Confidence interval
FOV	Field of view
HT	Hough transforms
IP camera	Internet protocol camera
IR-LED	Infrared light emitting diode
MAE	Mean absolute error
PCA	Principal component analysis
P-CR	Pupil-corneal reflection
RMSE	Root-mean-square error
RGB	Red, Green, Blue
SD	Standard deviation
2-D	Two-dimensional
3-D	Three-dimensional

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STATEMENT OF ORIGINALITY

1. A novel method requiring only a single camera for a three-dimensional eye gaze tracking using eye model is proposed. By computing the gray-level intensity of image patches, the eigenvalues of iris and the iris area, eye gaze distance can be estimated.
2. A new three-dimensional eye model is proposed for eye gaze tracking by using the proposed eye gaze distance estimation without camera calibration and user calibration.
3. The proposed method can improve the accuracy of eye gaze tracking system even under the condition when a user's head is not stationary.

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ข้อความแห่งการริเริ่ม

- 1) วิทยานิพนธ์นี้ได้เสนอวิธีการใหม่ในการตรวจติดตามการเพ่งมองโดยใช้แบบจำลองตา 3 มิติ ด้วยกล้องเดี่ยว การประมาณระยะห่างทำได้โดยการคำนวณค่าความเข้มของแสงระดับเทาของแผ่นภาพ โดยใช้ค่าลักษณะเฉพาะของม่านตาและการใช้พื้นที่ของม่านตา
- 2) วิทยานิพนธ์นี้ได้เสนอแบบจำลองตา 3 มิติแบบใหม่ สำหรับการใช้งานการตรวจติดตามการเพ่งมอง โดยใช้วิธีการประมาณระยะห่างของตาที่ได้เสนอ โดยไม่มีการปรับเทียบระบบและการปรับเทียบผู้ใช้งาน
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