CS4425, Visible Light Communication & Sensing

– Report Laboratory 1 –

Note: Do not modify the font size or margins of this report. Maximum 1 page. Delete this note from your final submission in pdf.

Group number: Members (Names & IDs):

**Transmitted message.**  contents:

length (in bytes): TX frequency:

calculated CRC (2 bytes):

**Decoding at a 10-cm distance.** amplitude threshold:

determined symbol period:

RX frequency: maximum goodput:

maximum communication distance:

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| Describe the method used for the preamble detection. |

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| What was the most challenging part of decoding the frame? What happens if there are errors in the decoded frames? |

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| Figures on page 2:   1. Plot the time series of a received whole frame and highlight the amplitude threshold and each part of the frame (i.e., preamble, length, payload, CRC) 2. Amplitude thresholds vs distance plot. 3. Communication range vs ambient light (dark, daytime, night) plot. |

**General.**

Describe the effect of ambient light (noise) on the frame transmissions.