

CS 795/895 – Vehicular Networks
Mid-Term Exam
October 21, 2010

- *Write your name at the top of each page.*
- *Answer all 10 questions.*
- *You may use your notes, textbook, and research papers as references.*
- *Each answer is worth a maximum of 10 points.*
- *I have provided room for your answers on the front of the exam. Do not feel that you need to fill all available space. If you need more room, use the back of the exam, but make a note that your answer is continued on the back.*
- *Your answers must be in your own words. Copying from other material will result in a significant number of points deducted.*

References:

- Saleh Yousefi, Mahmoud Siadat Mousavi and Mahmood Fathy, "Vehicular Ad Hoc Networks (VANETs): Challenges and Perspectives," In *Proceedings of the 6th International Conference on ITS Telecommunications*. June 2006, pp. 761-766.
- Roberto A. Uzcategui and Guillermo Acosta-Marum, "WAVE: A Tutorial," *IEEE Communications Magazine*, Vol. 47, No. 5, May 2009, pp. 126-133.
- Marc Torrent-Moreno, Daniel Jiang, and Hannes Hartenstein, "Broadcast Reception Rates and Effects of Priority Access in 802.11-based Vehicular Ad-Hoc Networks", In *Proceedings of ACM VANET*, 2004.
- Daniel Jiang, Vikas Taliwal, Andreas Meier and Wieland Holfelder, "Design of 5.9 GHz DSRC-based Vehicular Safety Communication," *IEEE Wireless Communications*, Vol. 13, No. 5, October 2006, pp. 36-43.
- Qi Chen, Daniel Jiang, and Luca Delgrossi, "IEEE 1609 DSRC Multi-Channel Operations and Its Implications on Vehicle Safety Communications", In *Proceedings of IEEE VNC*, 2009.
- Kezhu Hong, John B. Kenney, Vinuth Rai, and Kenneth P. Laberteaux, "Evaluation of Multi-Channel Schemes for Vehicular Safety Communications", In *Proceedings of the IEEE WiVEC*, 2010.