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New Start-Up Company Makes Parking a Whole Lot Smarter!

By: Dr. Arijit Sengupta, Assistant Professor in the Department of Information Systems and Operations Management, Raj Soin College of Business at Wright State University

Whether it's parking at a major event, or just getting into campus, one of the biggest headaches of our daily routines comes from the commute, and sometimes the hardest part is what comes in the end – finding a parking spot. SmartRF Solutions, a new startup company founded by Dr. Arijit Sengupta and his business partner, provides custom solutions for AVI enabled parking systems, starting from basic access control systems to complex end-to-end systems for large parking chains.

With the AVI (Automatic Vehicle Identification) technology used in the SmartPark RF product from SmartRF Solutions, the hassles of getting into a parking lot may get easier for many. For example, faculty and staff at Wright State University today use AVI in their restricted parking lots courtesy of a research project that is being commercialized into a parking solution that could solve many of the problems with our daily commute.

Such is the case for Katie Halberg, Senior Writer and Editor at Wright State University, who was so thrilled at not having to roll down the window to swipe her card that she wrote a beautiful poem based on Poe’s The Raven, excerpts from which are reproduced below with the author’s permission:

"From my window, I could see a driver struggle, reaching out his car door (For the rare and long-armed Raider can reach this and more...) To swipe their card and open the door…"

"By that Heaven that bends above up—by that RFID we've come to adore— Rejoiced this employee as the gate swung upward and upward more, Without a Wright1 Card, only a parking tag and nothing more…. And my car window shall be lowered—nevermore!"

SmartPark RF can equip an existing parking lot or garage with AVI capabilities. AVI allows vehicles to be automatically identified (leading to allowing/denying access to the structure) without any manual assistance from the operator of the vehicle. This makes parking more efficient, reduces vehicle queue lengths, and increases safety and convenience, because operators do not have to roll down the window or remove their card or wallet to gain access. It also provides easy ADA conformance with seamless access to physically handicapped clients.

SmartPark RF can lead to several additional services such as parking space counting, violation detection, and guest parking management. An initial survey of users of SmartParkRF suggests that over 90% of users would be happy to pay a small $5 surcharge for this service – something that parking management can use to easily derive a return on investment in the technology.

SmartRF Solutions is located in the new TechTown building and is part of the first group of companies at the Dayton RFID Convergence Center. To learn more about SmartRF Solutions and SmartPark RF, please visit http://www.smartrfsolutions.com or email Dr. Sengupta at arijit.sengupta@smartrfsolutions.com, or call 937-217-RFID.

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Dr. Arijit Sengupta is Assistant Professor in the Department of Information Systems and Operations Management in the Raj Soin College of Business at Wright State University. He received his Ph.D. in Computer Science from Indiana University in 1997, and worked as the Director of Educational Development and Assistant Professor in Indiana University until 1999. He worked as a faculty in the department of Computer Information Systems at Georgia State University and Assistant Professor in Information Systems at the Kelley School of Business at IU, before joining Wright State University in 2005. His research interests are primarily in database systems, and in particular, database systems for structured documents. He has published several papers in leading conferences and journals, and has led the development of the research prototype Docbase, a query processing software for SGML and XML documents. His other research interests include data mining, semantic web technologies and ontologies, human-computer interaction, bioinformatics, and case-based reasoning.

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