Class Schedule - Spring 2017

Electrical and Computer Engineering

ECE 598  **Special Topics in ECE**  credit: 0 TO 4 hours.
Subject offerings of new and developing areas of knowledge in electrical and computer engineering intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. May be repeated in the same or separate terms if topics vary.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>65559</td>
<td>Lecture</td>
<td>RR</td>
<td>03:00 PM - 04:20 PM</td>
<td>MW</td>
<td>2013 - Electrical &amp; Computer Eng Bldg</td>
<td>Roy Choudhury, R</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Mobile Sensing & Sensor Fusion
Restricted to Graduate - Urbana-Champaign.
Prerequisites: ECE 313 (or equivalent) or ECE 448/CS 440 (CS 473 and ECE 310 desirable). This course will discuss techniques and algorithms towards building mobile sensing systems, with case studies in wearable computing, internet of things (IoT), activity and gesture recognition, indoor localization, drone flight control, and sports analytics. In one case study, students will learn about Hidden Markov Models and Viterbi decoding in the context of recognizing hand gestures from smartwatch motion data; in another study, students will learn when and how to offload computation from the phone to the cloud, to meet real-time and energy constraints. In general, the course introduces graduate students to this holistic nature of emerging computing systems, with an emphasis on how sensing interplays with computing and communications. At the end of the course, students would be expected to apply learnt techniques towards a course project that they motivate, formulate, and execute by themselves.

| 66225  | Lecture | TPE     | 02:00 PM - 03:50 PM | W    | 4070 - Electrical & Computer Eng Bldg | Pilawa Podgurski, R |

Credit Hours: 2 hours
Selected Topics in Power Elect
Restricted to Graduate - Urbana-Champaign.