Swarm Behavior

Presentation time: 2:30 to 2:55 p.m.

<table>
<thead>
<tr>
<th>1. Department</th>
<th>ECE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Project Title</td>
<td>Swarm Behavior</td>
</tr>
<tr>
<td>3. Students</td>
<td>Name (first, last)</td>
</tr>
<tr>
<td></td>
<td>Karan Kohli</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sponsor</td>
<td>None</td>
</tr>
<tr>
<td>5. Permission</td>
<td>N/A</td>
</tr>
<tr>
<td>6. Faculty Advisor</td>
<td>Dr. Ralph Tanner</td>
</tr>
<tr>
<td>7. Description</td>
<td>The project implemented a theoretical code developed by Dr. Shawn Sadden from California Institute of Technology onto four mobile robots. The code, which had been developed in Matlab™, provides a capability for a swarm of robots to navigate autonomously around an obstacle. This project rewrote the code for the physical robots. Two of the robots used Parallax™ processors and two robots used Brain-Stem™ processors. In each case, the code was translated into the processor’s native language. The robots were then tested using several test courses</td>
</tr>
</tbody>
</table>
**MAILING INFORMATION** (U.S. addresses only)

<table>
<thead>
<tr>
<th>Name</th>
<th>Karan Kohli</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
<td>4665 Woodland Hills Ct.</td>
</tr>
<tr>
<td></td>
<td>Kalamazoo</td>
</tr>
<tr>
<td>State/Zip</td>
<td>MI-49006</td>
</tr>
</tbody>
</table>