Chapter IV

Bluetooth Scatternet Using an Ad Hoc Bridge Node Routing Protocol for Outdoor Distance Education

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Abstract

In recent years, the prevalence of Internet and wireless technology has promoted mobile communications as a major research area. For the future distance education purposes (Instructional Technology Council), to be able to access the course materials anytime and everywhere will become a key issue. Especially when students are out of classroom and are within a museum or a field investigation process, using Ad Hoc mechanism to access the real time brief or introduction can definitely improve their learning interests greatly. One of the topics is IEEE802.11, which includes the
Bluetooth Scatternet and MANET

Distance Education

The process of extending learning, or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site, to another classroom, building or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods. Defined by ICT (Instructional Telecommunications Council).

Hence, the distance education is growing and more and more schools are using distance learning to assist teachers and students in study. Distance education can be divided into synchronous and asynchronous by time; video, radio and data by teaching mediums. Several kinds of distance education are shown in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Synchronous</th>
<th>Asynchronous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video</td>
<td>Videoconferencing</td>
<td>Videotape, Broadcast video</td>
</tr>
<tr>
<td>Radio</td>
<td>Audio-conferencing</td>
<td>Audiotape, Radio</td>
</tr>
<tr>
<td>Data</td>
<td>Internet chat, Desktop videoconferencing, Web</td>
<td>E-mail, CD-ROM, Web</td>
</tr>
</tbody>
</table>

Table 1. Classifications of distance education
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