**INTERNSHIP PROGRAM FOR INTERNATIONAL STUDENTS**

**INTERNSHIP SUBJECT FORM**

<table>
<thead>
<tr>
<th>Name of the Host Laboratory</th>
<th>LIX, Ecole Polytechnique</th>
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<tbody>
<tr>
<td>Website of the Host Laboratory</td>
<td><a href="https://www.epizeuxis.net">https://www.epizeuxis.net</a></td>
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<tr>
<td>Research Group</td>
<td>Epizeuxis Network Research Group</td>
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<tr>
<td>Internship Supervisor</td>
<td>Thomas Clausen <a href="mailto:thomas.clausen@polytechnique.edu">thomas.clausen@polytechnique.edu</a> Jiazi Yi <a href="mailto:jiazi.yi@polytechnique.edu">jiazi.yi@polytechnique.edu</a></td>
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<tr>
<td>Internship Subject</td>
<td>Routing protocol for mesh networks</td>
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| Student’s level | ☑ Advanced Undergraduate Students (3rd or 4th year)  
☑ Master’s students (1st or 2nd year)  
☐ PhD students |
| Proposed Duration | ☑ 3 months  
☑ 4 months  
☑ 5 months  
☒ 6 months |
| Prerequisites | Major in computer science, network engineering, communication, electrical engineering or related fields.  
Good understanding and experiences in communication/network protocols, network simulation, programming (especially C/C++, Python, Java). |
| Internship description (max. 15 lines) | Routing protocols such as OLSR ([https://www.epizeuxis.net/index.php/topics/olsr-optimized-link-state-routing/](https://www.epizeuxis.net/index.php/topics/olsr-optimized-link-state-routing/)) and LOADng ([https://www.epizeuxis.net/index.php/topics/loadng/](https://www.epizeuxis.net/index.php/topics/loadng/)) aim at building paths for networks with dynamic mesh topology. This internship aims at improving the routing protocols regarding the aspects of:  
- Scalability, to support larger number of nodes and more traffic load;  
- Security, to protect the network from malicious attacks;  
- Routing efficiency, to reduce the routing overhead;  
- Resilience to network failure, such as link breaks, battery shortage, etc. |

To apply or for further information, please contact the internship supervisors.