UE Advanced networking

Niveau d'étude
Bac +5

ECTS
6 crédits

Crédits ECTS Echange
6.0

Composante
UFR IM2AG (informatique, mathématiques et mathématiques appliquées)

Période de l'année
Automne (sept. à dec./janv.)

- **Langue(s) d'enseignement:** Anglais
- **Ouvert aux étudiants en échange:** Oui
- **Crédits ECTS Echange:** 6.0
- **Code d'export Apogée:** GBX9MO58

Présentation

Description

The purpose of the lecture is to give you more knowledge and skills in the domain of computer networking. Both theoretical and practical knowledge will be acquired.

Content:

1. Routing:
   - at Layer 2 - Spanning Tree Protocol
   - internal routing (RIP, OSPF)
   - external routing (BGP)
2. Congestion control:
   - fairness
   - AIMD algorithm
   - TCP variants (Reno, Cubic, BBR)
3. Quality of Service:
   - token bucket, scheduling
   - MPLS

4. Case study

- Next Generation Data Center Architecture

Heures d'enseignement

CM	CM	36h
TP	TP	18h

Pré-requis recommandés

Students should have taken the basic computer networking course.

- Routing (RIP, OSPF, BGP) - Congestion control - Quality of service - MPLS - SNMP - Case study Next Generation Data Center Architecture

Période : Semestre 9

Compétences visées

The lecture is a follow-up of the basic computer networking course and provides a more detailed view on routing protocols, congestion control, and Quality of Service. Lab exercises and manipulations will provide some practical knowledge of advanced protocols.

Infos pratiques

Contacts

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Campus

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