| **DAY 1** |
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| **เวลา** | **เนื้อหา** | **หมายเหตุ** |
| 09.00 – 10.30 น. | **The Internet Protocol*** IPv6 Technical Features
* Differences between IPv4 and IPv6
* IPv6 Address Architecture and Scheme
* Notation of IPv6 addresses
* Types of addresses
* IPv6 Addressing Schemes
* IPv6 Address Allocation (Follow by RFC)
* Sample Address allocation
* Address configuration
* Stateless autoconfiguration / RA
* Stateful autoconfiguration / DHCPv6
* Duplicate address detection
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| 10.30 – 10.45 น. |  ---------- Break ---------- |  |
| 10.45 – 12.00 น. | **ICMPv6** * Path MTU Discovery
* Multicast Listener Discovery
* Neighbour discovery procedures, SEND
* Router redirection
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| 12.00 – 13.00 น. | ---------- Lunch ---------- |  |
| 13.00 – 14.30 น. | **Client configuration (Practical training)*** OS client ConfigurationSet up IPv6 clients Windows, Mac, Linux
* Address auto-configuration for clientPing6, IP config, routing, traceroute, IPv6 testing tools
* Understand IPv6 packet contents Wireshark, (see all traffic patterns) (เน้นดูแบบ Local)
* Understand duplicate address detection
* Understand router advertisement
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| 14.30 – 14.45 น. | ---------- Break ---------- |  |
| 14.45 – 16.30 น. | **Name Service in IPv6** * IPv6 and DNS
* AAAA
* Reverse lookup in IPv6.ARPA
* DNS Setup (Preinstalled Linux/VM, VirtualBox)

**Practical work**Setup Bind, Add/remove IPv6 records, zone transfer |  |

| **DAY 2** |
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| เวลา |  เนื้อหา  | หมายเหตุ |
| 09.00 – 10.30 น. | **Set up IPv6 servers and firewall ( Practical work )*** Web server (Apache)
* Mail server (sendmail)
* Firewall (iptables)
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| 10.30 – 10.45 น. | ---------- Break ---------- |  |
| 10.45 – 12.00 น. | **IPv6 Integration and migration** * IPv4/IPv6 migration and transition techniques
* Dual stacks
* Encapsulation/Tunnelling (e.g., 6-to-4, 6-in-4, 6-r-d, Isatap, Teredo)
* Translation (e.g. CGN, NAT44, NAT444, AF
 |  |
| 12.00 – 13.00 น. | ---------- Lunch ---------- |  |
| 13.00 – 14.30 น. | * IPv4/IPv6 migration and transition techniques (Cont.)
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| 14.30 – 14.45 น. | ---------- Break ---------- |  |
| 14.45 – 16.30 น. | **Practical work (Cont.)*** Tunnel Broker
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| **DAY 3** |
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| **เวลา** | **เนื้อหา** | **หมายเหตุ** |
| 09.00 – 10.30 น. | **Routing protocols** * Static, Dynamic routing and its advantages over the static routing
* RIPng
* OSPF for IPv6
* BGP4+
 |  |
| 10.30 – 10.45 น. | ---------- Break ---------- |  |
| 10.45 – 12.00 น. | **Practical work*** Static
* OSPF
 |  |
| 12.00 – 13.00 น. | ---------- Lunch ---------- |  |
| 13.00 – 14.30 น. | **Practical work** (Cont.) |  |
| 14.30 – 14.45 น. | ---------- Break ---------- |  |
| 14.45 – 16.30 น. | **Practical work** (Cont.) |  |