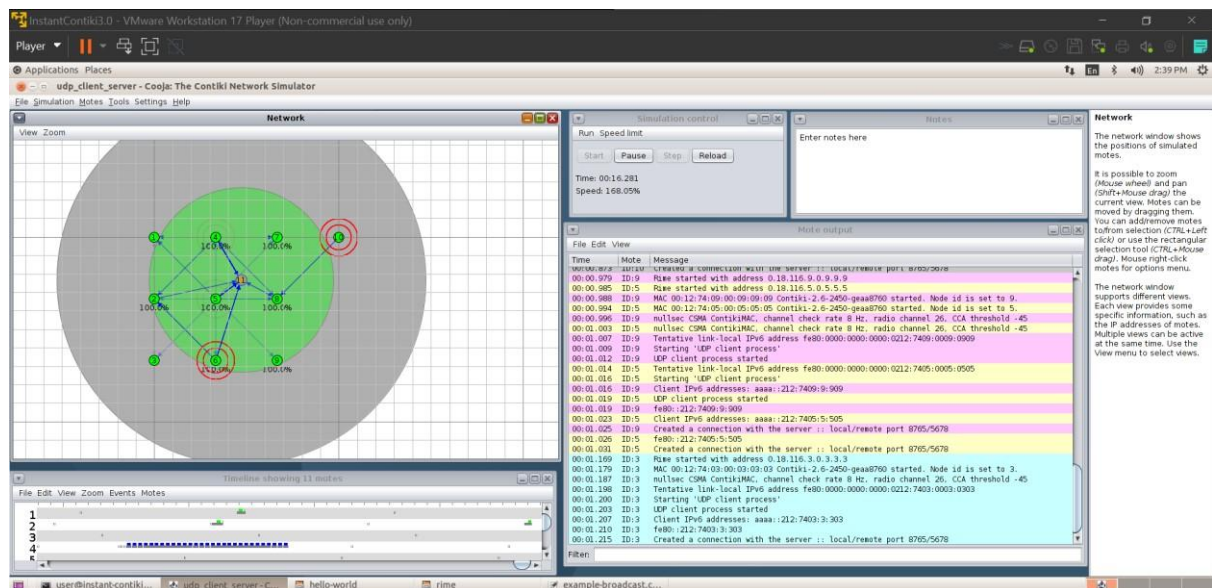# Developing Next-Gen IoT Solutions with Contiki OS and Cooja Simulator 2024

Name: Sarthak S Kumar

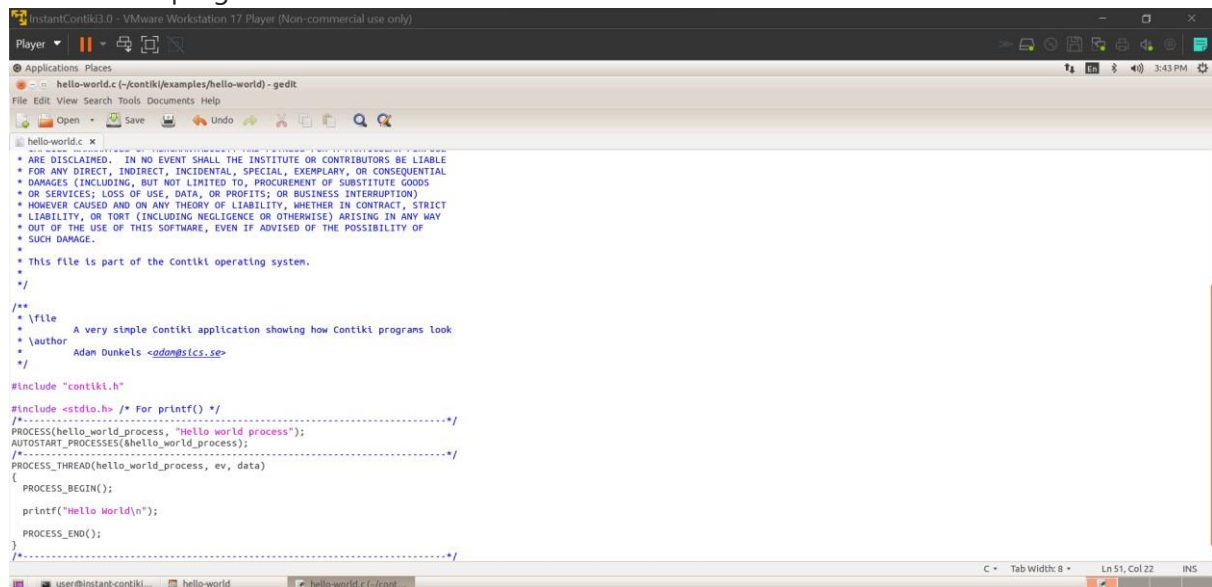SRN: PES2UG21CS482

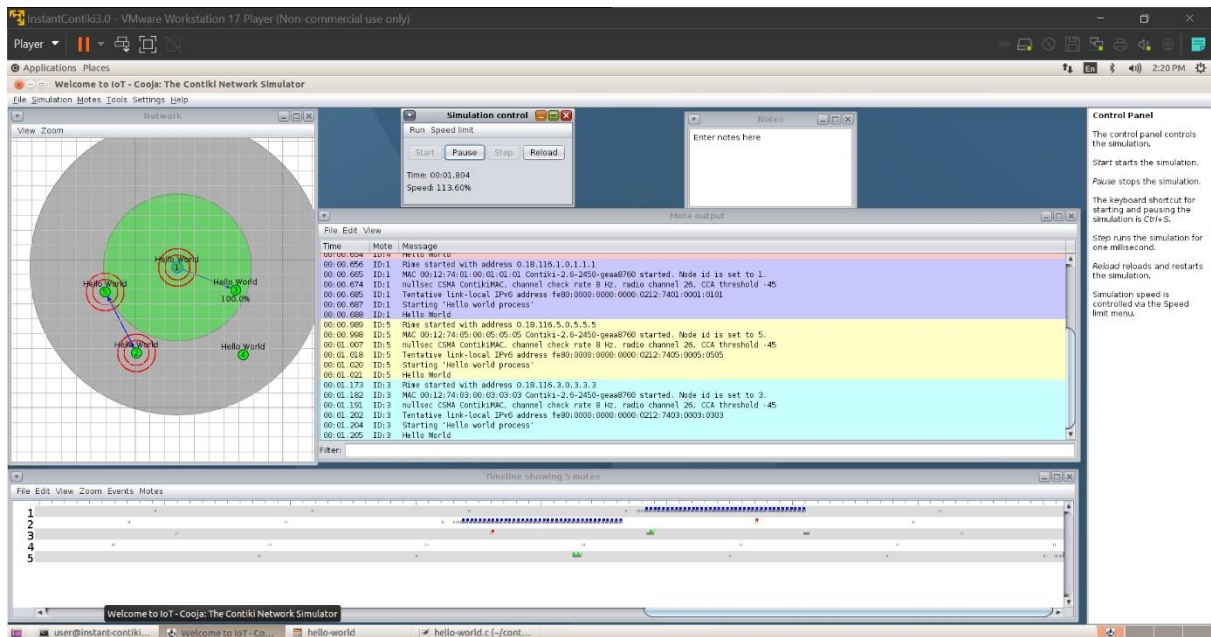LAB 1

1.Client-Server Program
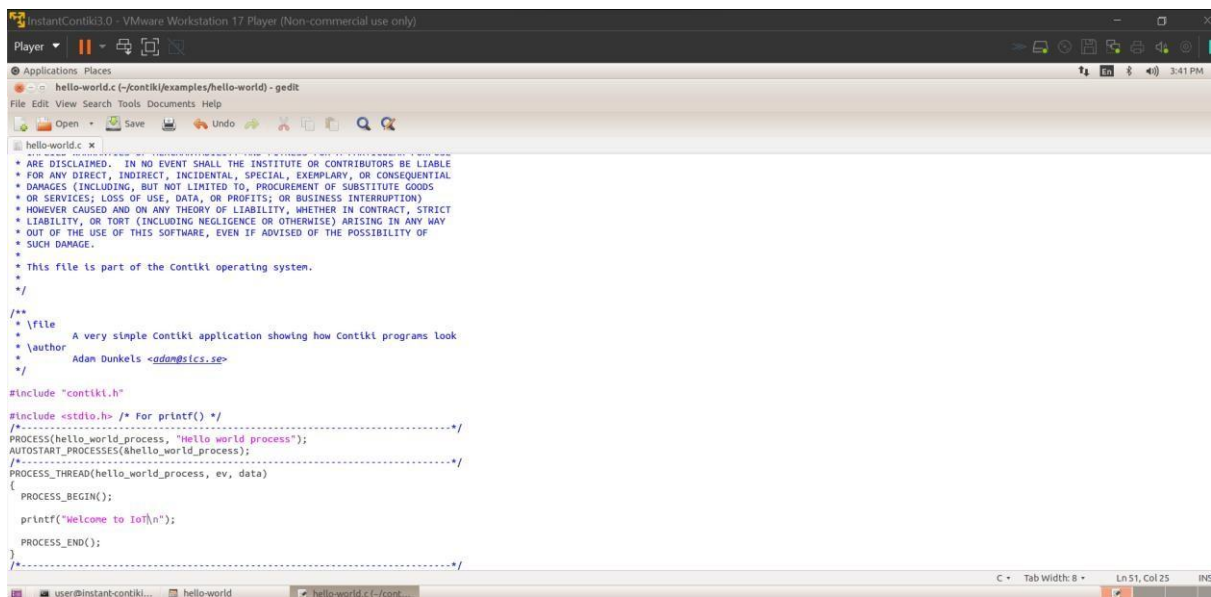

2.Hello world program

3.Modifying Hello-World.c

4.Broadcast Program

5.Altering sending rate in broadcast program (DOS attack)

InstantContiki3.0 - VMware Workstation 17 Player (Non-commercial use only)

Player

Applications Places

example-broadcast.c (~/contiki/examples/rime) - gedit

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example-broadcast.c ✕

```c
AUTOSTART_PROCESSES(&example_broadcast_process);
/*---------------------------------------------------------------------------*/
static void
broadcast_recv(struct broadcast_conn *c, const linkaddr_t *from)
{
  printf("broadcast message received from %d.%d: '%s'\n",
         from->u8[0], from->u8[1], (char *)packetbuf_dataptr());
}
static const struct broadcast_callbacks broadcast_call = {broadcast_recv};
static struct broadcast_conn broadcast;
/*---------------------------------------------------------------------------*/
PROCESS_THREAD(example_broadcast_process, ev, data)
{
  static struct etimer et;

  PROCESS_EXITHANDLER(broadcast_close(&broadcast);)

  PROCESS_BEGIN();

  broadcast_open(&broadcast, 129, &broadcast_call);

  while(1) {

    /* Delay 2-4 seconds */
    etimer_set(&et, CLOCK_SECOND * 2 + random_rand() % (CLOCK_SECOND * 2));

    PROCESS_WAIT_EVENT_UNTIL(etimer_expired(&et));

    packetbuf_copyfrom("ATTACK", 7);
    broadcast_send(&broadcast);
    printf("broadcast message sent\n");
  }

  PROCESS_END();
}
/*---------------------------------------------------------------------------*/
```

C ▾ Tab Width: 8 ▾ Ln 72, Col 13 INS

user@instant-c... broadcast - Co... hello-world rime example-broa...