Instructions for Tutorial-Writing Assignment

Tutorial Proposal Deadline: **23:59 pm, Feb 11, 2025**
Tutorial Submission Deadline: **23:59 pm, April 6, 2025**

Objective

This assignment aims to help you develop technical communication skills by creating an informative, detailed, well-structured, and engaging tutorial on a topic broadly related to IoT, AIoT, or relevant technologies. The focus is more on clear explanation, creativity, and practical insights, rather than advanced technical implementation.
Selected high-quality tutorials will be invited to publish online on a permanent course website, contributing to an open repository of educational resources.

Guidelines

1. **Teamwork**
    - Pair up with a classmate to form **a two-student team**. Select a partner with complementary skills (e.g., one strong in technical understanding, the other in design or writing).
    - You may choose to work on your own if you have a strong preference of doing so.
2. **Topic Selection**
    - **Topic proposal:** You are strongly encouraged to propose your own topic of interest. However, your topic should broadly fall under the scope of AI or IoT and will be reviewed and approved by the instructor.
    - **Example topics** (only for references):
        - IMU Coordinate Transformation for Accurate Motion Tracking
        - Turning ESP32/Your Smartphone into a Step Counter
        - Can Smartphone Cameras Track Your Heart Rates?
        - Detecting Falls with Accelerometers and Gyroscopes
        - DNN Pruning and Quantization for Edge Devices
        - Deploying a CNN on an ESP32 / Run Llama Locally on a Laptop
        - Guiding ChatGPT to Understand Wearable Sensor Data
        - OpenAI Real-Time on ESP32
        - Knows and Unknows of LoRa
    - **Topic approval**: Submit a brief abstract (max 100 words) for approval before starting. Include:
        - Title of the tutorial (subjective to change).

    - Objectives and expected outcomes.
    - Key technologies or tools covered.
    - Information of team members
  - **Proposal Deadline:** Submit your topic selection by **Feb 11, 2025** (right after the add/drop period) through this online form: https://forms.office.com/r/iLDfn7QbSL
3. **Structure and Format**
  - You can freely decide how to organize the tutorial. As a reference, you may use a **standard tutorial structure** as follows to ensure clarity and consistency. Note that you don't have to include all listed sections.
    1. **Title**: Clear, concise, and descriptive.
    2. **Introduction**: Explain the problem, context, and goals of the tutorial.
    3. **Prerequisites**: List required knowledge, tools, or equipment.
    4. **Step-by-Step Guide**: Detailed instructions with diagrams, screenshots, or code snippets.
    5. **Demonstration**: Showcase results, simulations, or examples.
    6. **Conclusion**: Summarize key takeaways and suggest further reading or applications.
    7. **References**: List any articles, books, or resources you used. All work must be original and properly cited.
    8. **FAQs** (Optional): Address potential questions or common pitfalls.
    9. **Acknowledgement**: Acknowledge any sources for help, including AI tools. A contribution statement is required if the tutorial is a teamwork.
  - There is no strict page limit. However, your tutorial should be of appropriate length corresponding to its contribution. Lengthy reports should be avoided.
4. **Evaluation Criteria**

   Tutorials will be graded based on the following:
  - **Topic Novelty and Relevance (20%)**: Relevance to AI/IoT and originality. Creativity in topic selection or problem-solving approach.
  - **Clarity and Depth (30%)**: Clear writing, organized structure, and readability. Appropriate depth of technical content.
  - **Accuracy (15%)**: Correct technical details and instructions.
  - **Presentation and Demonstration (30%)**:
    - Engaging, well-structured, and visually appealing tutorial.
    - Use of multimedia (images, diagrams, videos).
    - Visual aids (e.g., diagrams, screenshots), examples, and real-world applications.
  - **Professionalism (5%)**: Length, grammar, formatting, etc.
5. **Platform and Submission**

- Submit your work on Moodle by **23:59 pm, April 6, 2025** (HARD deadline, NO slip days allowed).
- Export a single pdf file for submission.
- Selected high-quality tutorials will be invited to publish online on a designated platform.

Additional Notes

- **Level of Difficulty**: The tutorial does not need to explore groundbreaking technical innovations but should reflect a thorough understanding of the chosen topic. Build on existing knowledge where possible.
- **Academic Integrity**: All work must be original and properly cited.
- **Writing Tool**: Whenever possible, write your tutorial using **Markdown**. For selected tutorials to publish online, it will save a lot of efforts if you are using Markdown.
- **Collaboration and Support**
  - Use collaborative tools (e.g., Google Docs, GitBook drafts) for teamwork.
  - Refer to course resources or consult the instructor for technical and writing guidance.

We look forward to learning from you and your exciting tutorials!