ENG 4A03 FA24
Term Project, Part I: Literature Review

Below is a list of emerging fields in different engineering disciplines. Select a field from the list below that your group will focus on. Your group will select only one field. This is the field that your group will continue working with for the subsequent sections of the ENG 4A03 project.

      I.   Give a rationale as to why you selected this field.

For the first part of the term project, your group is required to

      II.   conduct and submit a literature review on **the growth and adoption** of technologies within this field, as well as **the incorporation of decolonization, equity, diversity, and inclusion (DEDI)**, within the field.

The aim of this part of the project is to gain and understand the breadth of 'the state of the art' in your field. Treat this review as a summary of technology(ies) within your field.

You may cite your resources using APA or IEEE citation formats. Word Limit 1500 words (or 5 pages). The TA will stop reading at 1500 words (or 5 pages). The word limit does not include the references.

1. **5G Technology**:
2. **Quantum Computing**:
3. **Additive Manufacturing (3D Printing)**:
4. **Advanced Materials**:
5. **Renewable Energy Technologies**:
6. **Robotics and Automation**:
7. **Biotechnology and Bioengineering**:
8. **Autonomous Vehicles**:
9. **Smart Infrastructure**:
10. **Nanotechnology**:
11. **Blockchain Technology**:
12. **Environmental Engineering Technologies**:
13. **Space Exploration Technologies**:
14. **Artificial Intelligence and Machine Learning**:
15. **Other** (Define)

To enhance accountability and equality, all group members that contributed to the project should fill the **Group project participation form** and submit it together with this assignment.
Fill the form in MS Word, Convert to PDF and Attach this form as a PDF to the last page of your assignment. Your assignment is incomplete without the submission/inclusion of this form.

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Grading Rubric

Criteria	Exceptional (5)	Great (4)	Good (3)	Limited (2)	Insufficient (1)
Field Selection (5 Marks)	Provides a clear, compelling rationale for the choice based on relevance and interest.	Gives a rationale for the choice, though it may lack some depth or clarity.	Rationale for somewhat unclear or lacks significant depth.	Rationale is vague or with no clear relevance.	Fails to provide any rationale for selection.
Literature Review Depth (10 Marks)	comprehensive, thoroughly covering relevant aspects of technology growth, adoption, and DEDI incorporation within the selected field. It demonstrates a deep understanding of the subject matter.	well-detailed, covering most relevant aspects of technology growth, adoption, and DEDI incorporation within the selected field. Shows a good understanding of the subject matter.	provides an adequate overview of technology growth, adoption, and DEDI incorporation within the selected field, but some key points may be missing or not well-developed.	basic and lacks depth, missing several critical points related to technology growth, adoption, and dEDI within the selected field.	minimal or absent, providing little to no information on technology growth, adoption, and DEDI within the selected field.
Clarity and Organization (10 Marks)	exceptionally well-organized, with clear section headings, smooth transitions, and excellent writing, making it highly engaging and easy to follow.	well-organized, with clear section headings, smooth transitions, and good writing style	organized with section headings and transitions. Some areas may lack clarity or have minor organizational issues.	somewhat unclear, and transitions between sections may be abrupt or confusing.	lacks organization and has numerous issues with clarity, making it challenging to follow.
Integration of dEDI	Thoroughly integrates	integrates DEDI	Integrates DEDI	Attempts to integrate	The review does not

Criterion	Excellent	Good	Adequate	Limited	Insufficient
(10 Marks)	decolonization, equity, diversity, and inclusion (DEDI) concepts within the field, demonstrating a deep understanding of their relevance and impact.	concepts within the field, showing a good understanding	concepts to some extent within the field, but some connections or implications may be unclear.	DEDI concepts but lacks depth or clear connections within the field.	effectively integrate DEDI concepts or their relevance within the field.
References and Citations (3 Marks)	includes an extensive list of high-quality, relevant sources with proper citations consistently following APA or IEEE citation styles.	a substantial list of relevant sources with proper citations in APA or IEEE styles.	an adequate number of sources with generally proper citations, though there may be some inconsistencies or minor issues.	a limited number of sources with inconsistent or incomplete citations.	The review lacks proper references and citations, or they are entirely incorrect.
Overall Quality (2 Marks)	demonstrates exceptional quality, depth, and insight, showcasing a strong command of the subject matter, critical thinking, and exceptional writing skills.	literature review is of good quality, demonstrating a solid understanding of the subject matter & critical analysis,.	competent quality, covering the basics of the subject matter and showing some critical thinking and writing skills.	limited quality, lacking depth, critical analysis, and effective writing.	insufficient quality, with major deficiencies in understanding, analysis, and writing.
Total (out of 40)					