

In collaboration with Staffordshire University

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| |  |  | | --- | --- | | **Module Title:** | Emerging Technologies | | **Module Code:** | COMP60009 | | **Attempt:** | First Sit | | **Group or Individual:** | Individual Assignment | | **Assignment Number:** | 1 of 2 | | **Assignment valid until:** | October 2024 | | **Assignment Title:** | Research Paper | | **Weighting:** | 50% of this module | | **Assignment set by:** | Viju Prakash Maria John | | **Assignment verified by:** |  | | **Word Limit:** | 3,000 | |

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| |  |  | | --- | --- | | **Date Issued to Students:** | 30/10/2023 | | **Submission Date and Time:** | See the Canvas module homepage for the submission date | | **Method of Submission:** | Canvas Submission | |

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| Learning Outcomes to be assessed:  1. Demonstrate a systematic understanding of emerging technologies, and their characteristics, and develop appropriate knowledge in order to address some field-specific contemporary research questions.  3. Demonstrate a critical evaluation of technical and/or non-technical implications of a researched emerging technology. This is to include an appropriate critical evaluation of any social, legal or ethical implications.  4. Identify and evaluate research gaps in an identified emerging technology and propose some potential solutions or recommendations. |

# AI Level:

# The table below shows to what extent you are allowed to use Generative AI (GenAI) tools such as ChatGPT in your assessment. Please refer to the BUV Student AI guidelines for full information on how you can use GenAI tools in an ethical manner at BUV.

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| AI Level | Description | This assessment |
| 1. No AI | The assessment is completed entirely without AI assistance. This level ensures that students rely solely on their knowledge, understanding, and skills.  AI must not be used at any point during the assessment. |  |
| 2. AI Assisted idea generation and structuring | AI can be used in the assessment for brainstorming, creating structures, and generating ideas for improving work.  No AI content is allowed in the final submission. | X |
| 3. AI Assisted language editing | AI can be used to make improvements to the language of student-created work to improve the quality of the final output, but no new content can be created using AI.  AI can be used, but your original work with no AI contentmustbeprovidedin an appendix. |  |
| 4. AI task completion, human evaluation | AI is used to complete certain elements of the task, with students providing discussion or commentary on the AI-generated content. This level requires critical engagement with AI-generated content and evaluating its output.  You will use AI to complete specified tasks in your assessment. Any AI-created content must be cited.  You must not use AI to support with your commentary or evaluation of the work. |  |
| 5. Full AI | AI should be used as a ‘co-pilot’ in order to meet the requirements of the assessment, allowing for a collaborative approach with AI and enhancing creativity.  You may use AI throughout your assessment to support your own work and do not have to specify which content is AI generated. |  |

# Assessment Brief:

# Assignment 1: Research Paper

For this assignment, you are required to undertake independent research on an emerging technology (invented within the last three years) of your choice and present your findings as a 3,000-word research paper. There is no practical implementation part to this assignment. The objective of this assignment is to critically evaluate the technical and/or non-technical implications of the emerging technology of your choice. Your evaluation may include any social, ethical, or legal issues surrounding it. In addition, you should identify and evaluate any research gaps in your chosen technology. Do not propose any solutions and/or recommendations to address them.

As with any other piece of scientific research, you are expected to satisfy each element of a research paper. The necessary article structure that should be followed for this assignment is given in **Appendix 2**. You are encouraged to attend your lecture and tutorial sessions to get an overview of the entire research process behind the production of a paper. You are strongly advised to keep a copy of the book “**The Craft of Research” (4th Ed) by Booth et al.** and refer to it constantly to solve any doubts you may have as you produce your paper. You can get any alternative textbooks to support you in completing this assignment. Feel free to talk to your module leader whenever you have a few doubts or queries that need to be solved. See Appendix 1 for the detailed marking rubric.

# Guidance Notes

Follow the notes below where applicable.

1. Do not include your name anywhere on your assignment.
2. Your assignment should be written in a font size of 12.
3. You must include a correctly formatted Reference List on a separate page at the end of your essay. This must only include references to work that you have directly cited in your essay.
4. You must include your accurate word count at the end of your assignment.
5. Use standard margins for the assignment and 1.15 line spacing.
6. Only Microsoft Word files should be used for assignments. Please allow time for conversion to these formats if required.
7. When you upload your file for submission you must name the file by your full student number in the following format: ‘HANXXXXXXXXX’
8. For submissions requested as a report, you may wish to include a cover sheet and contents page
9. The marking scheme that will be used to mark your work is shown at the end of this document in Appendix 1.

**Submission Procedure**

You are not required to print and submit a hard copy of your work, as all submissions are carried out electronically through Canvas. Please ensure you do not wait until the last minute to carry out your submission; computer problems can happen any time and this will not be accepted as an excuse for late submission. This includes internet connectivity issues. When you submit your assignment, it is in your best interests to save and/or print a copy of your online submission receipt to prove that you have submitted your assignment on time.

If you feel that you can’t submit your assessment on time, you should speak to your module leader who will help you to work out how you can hand-in on time.

If unexpected circumstances that you could not have planned for have happened, you may be able to claim for exceptional circumstances to be taken into account. There is more information [here.](https://www.staffs.ac.uk/support_depts/info_centre/handbook/extenuating/index.jsp)

If you have no exceptional circumstances and you do not submit you will fail the assessment. If you submit within 5 working days of the hand-in deadline we will mark your work as late, meaning the maximum mark you can achieve is the basic pass mark and this will count as your first attempt. If you are taking a re-sit assessment, late submissions will not be accepted.

Please see the Staffordshire University regulations [here](https://www.staffs.ac.uk/legal/policies/Acadregs.jsp) for more information

The Maximum word limit is shown on the front cover of the assignment.

You must provide an accurate word count at the end of your assignment. This word count must be placed before your reference list and should include all the written content of your assignment excluding the words used in any cover pages, contents pages, titles, sub-titles, reference lists, and appendices.

In the assignment, in addition to the word limit, you may make sensible use of tables, images of academic models, diagrams, figures, and student-created graphics such as Word-Art, etc. without penalty up to a maximum of 30% of the stated word limit of the assignment as shown on the front cover. In no circumstances must your overall use of words in these tables, models, etc. exceed this maximum 30% limit. If a marker feels that you have used tables simply to avoid the word count, they may count these words as part of your word count.

A sliding scale of penalties for excess length will be imposed according to the amount by which the limit has been exceeded.

1-10% excess no penalty.

11-20% excess 10% reduction in the mark

21-30% excess 20% reduction in the mark

>30% excess  the work will be capped at a pass i.e., 40%

**NB.** None of the above penalties will be used to change your mark that is above the pass mark, to one that is below the pass mark. Therefore, the maximum penalty for exceeding the word limit will be a reduction to a pass grade.

Please note that students’ work is regularly checked to ensure that the stated word count matches what has actually been submitted.

# Academic Misconduct and Plagiarism

BUV follows Staffordshire University policy on academic misconduct and takes suspected cases of academic misconduct, including plagiarism very seriously. The penalties are severe and can in some cases result in a student not being allowed to continue their studies. Plagiarism can happen in any type of assessment where you are given the questions or tasks in advance.

The Staffordshire University policy on Academic misconduct can be found [here](https://www.staffs.ac.uk/legal/policies/academic-conduct-procedure.jsp): and you are strongly encouraged to familiarise yourself with this.

You will have committed academic misconduct if you commit any of the following:

* [Plagiarism](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#plagiarism)
* [Self-Plagiarism](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#self-plagiarism)
* [Collusion](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#collusion)
* [False Declaration](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#false-declaration)
* [Fabrication or Falsification of Data](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#fabrication-or-falsification-of-data)
* [Bribery or Intimidation](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#bribery-or-intimidation)
* [Contract Cheating](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#contract-cheating)
* [Examination Misconduct](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#examination-misconduct)

Please see [here](https://www.staffs.ac.uk/legal/policies/types-of-academic-misconduct.jsp#examination-misconduct) for a detailed explanation of these terms or click the individual links above.

All work submitted at BUV must be composed in English by the students themselves. Using online software to translate work originally written in a language other than English is not permitted, as it misrepresents the level of effort you have put into completing the assessment. You are reminded to refer to BUV's Artificial Intelligence (AI) guidelines for a full understanding of the permissible use of AI technologies, including Generative Artificial Intelligence (GenAI) tools. The use of online paraphrasing tools and other AI-powered writing aids is governed by these guidelines. Any violations of these guidelines may be treated as academic misconduct, or you may receive significant mark penalties.

If Academic Misconduct is proven by the university, then typical punishments include:

* The grade for your assessment, being reduced to zero with the right to resubmit.
* The grade for the whole module or super module being reduced to zero with the right to resubmit.
* Failure of the entire level of which you are currently studying with a requirement to re-start the level at the next opportunity.
* Failure of the award and/or termination of your studies at the University. Your ability to reapply and enrol again at the university may also be restricted, normally for two whole academic years.

BUV encourages you to refer to appropriate academic sources, as long as you reference these correctly, and do not use too much material from the original source.

You must use the Harvard referencing system for all your assignments unless you are told otherwise by your Module Leader. If you do not know how to do this, please follow the guidelines given at this website address:

<http://www.staffs.ac.uk/support_depts/infoservices/learning_support/refzone/harvard/>

BUV employs Turnitin to assess all submissions for potential academic misconduct. This software highlights to the examiners in detail where material may have either been copied directly or paraphrased from a source with correct citation.

**Appendix 1: Marking Rubric Assignment 1 – Research Paper [100% of Assignment 1]**

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| --- | --- | --- | --- | --- | --- | --- |
| Criteria | % weighting | 0%-39% | 40%-49% | 50%-59% | 60%-69% | 70%+ |
| Abstract and Introduction | 10 | No proper abstract or introduction is given, or the quality of them is less than the minimum requirement. Pareto principle has not been followed for the abstract. | Both the abstract and the introduction are provided, and they meet the minimum requirement. Pareto principle has not been followed for the abstract. | Both the abstract and the introduction are adequate but require further development or additional detail. The main content of the research paper is unclear. Pareto principle has been followed for the abstract. | Both the abstract and the introduction have been written to a good standard and include most, but not all, of the necessary information. Pareto principle has been followed for the abstract. | Both the abstract and the introduction are excellent and clearly outline the contents of the paper, highlighting the key ideas in a concise manner. Pareto principle has been followed for the abstract. |
| Critical Analysis | 50 | No critical analysis is given, or the quality of the critical analysis given is less than the minimum requirement. | Critical analysis has been attempted but most of the analysis is off topic or doesn’t address the literature clearly. | Critical analysis is adequate, but some arguments lack coherence. Reflection is present but lacks detail. | Critical analysis is good, and the paper has some insightful moments. There are many coherent arguments that address the assignment requirements. There are some areas that lack detail or need more refinement. | Critical analysis is excellent and insightful. Everything is clearly presented, and arguments are coherent, clear, and concise. The content of the paper shows great comprehension of the subject. |
| Conclusion | 30 | No conclusion is given, or the quality of the conclusion given is less than the minimum requirement. | A conclusion is provided and meets the minimum requirement. | The conclusion is adequate but requires further development or additional detail. The main summary of the paper is unclear. | The conclusion has been written to a good standard and outlines most, but not all, of the material covered. | The conclusion is excellent and clearly outlines the contents of the paper, highlighting the key ideas in a concise manner. |
| Formatting and AI usage | 10 | No effort has been given to the formatting of the work or the formatting is less than the minimum requirement. No citations are given in the assignment. No or minimum level of AI-generated content is detected. | The work has been formatted to a minimum standard. Cited less than five related articles. No AI-generated content is detected. | The work has been formatted to an adequate standard with an attempt to keep writing concise but not been done successfully. Cited less than ten but more than five related articles. No AI-generated content is detected. | The work has been formatted to a good, professional standard with good referencing and concise writing. There are some mistakes throughout. Cited less than fifteen but more than ten related articles. No AI-generated content is detected | The work has been formatted excellently will concise and precise writing. The work is organized with appropriate headings and all citations and references have been completed correctly. Cited more than fifteen related articles. No AI-generated content is detected |

**Appendix 2: Article Structure**

**Title of the research paper** (Your title should be interesting and inform the reader of your topic.)

**Abstract**

Follow the **Pareto Principle** to complete the abstract. On the first line of the abstract page, center the word “Abstract” (bold, italics, no underlining or quotation marks). Beginning with the next line, write a concise summary of the key points of your research. (Do not indent.) An abstract should summarize your research topic, research questions, participants, methods, results, data analysis, and conclusions. Your abstract should be a **single paragraph double-spaced**. Your abstract should be between **150 and 250 words**.

**Keywords:** Include keywords one line below the abstract if requested. Write the label "Keywords:" (bold, italics), indented 0.5 in. like a regular paragraph, followed by the keywords in lowercase (capitalize proper nouns), separated by commas.

**Introduction**

Your assignment should begin with an introduction that includes a thesis statement (see handout on a good/bad thesis). The purpose of the introduction is the same as any research paper: in one to two paragraphs, briefly introduce and state the issue to be examined. The introduction always states what you are trying to prove/disprove in the research article.

**Literature Review**

A literature review is a survey of scholarly sources that provides an overview of a particular topic. Literature reviews are a collection of the most relevant and significant publications regarding that topic in order to provide a comprehensive look at what has been said on the topic and by whom. Write approximately 1500 words for this section. However, the word count of this section should be adjusted based on the other sections of the article and the assignment word limit.

The basic components of a literature review should include:

* a description of the publication;
* a summary of the publication’s main points; and
* a discussion of gaps in research
* an evaluation of the publication’s contribution to the topic

**Problem Statement**

A problem statement is an explanation in research that describes the issue that is in need of study. What problem is the research attempting to address? Having a Problem Statement allows the reader to quickly understand the purpose and intent of the research. It is expected to be brief and concise and should not include the findings of the research or detailed data. The average length of a research statement is **generally about one page**. It is going to define the problem, which can be thought of as a gap in the information base. There may be several solutions to this gap or lack of information, but that is not the concern of the problem statement. Its purpose is to summarize the current information and where a lack of knowledge may be presenting a problem that needs to be investigated. Besides identifying the gap of understanding or the weakness of necessary data, it is important to explain the significance of this lack.

* How will your research contribute to the existing knowledge base in your field of study?
* How is it significant?
* Why does it matter?

Do not include any bullet points for this section. Make sure that there are sufficient sub-sections for this section that are categorized properly based on your area of research.

**Identified Research Questions or Hypotheses**

This section must include the identified research questions and should not reveal any kind of solution to them. When you generate research questions, it is also important to consider the most up-to-date trends in the subject area, along with your own observations or conjectures. The identified research questions should be the outcome of passing through the following major elements:

* Read as much as you can.
* Refine your literature review.
* Define your keywords.
* Frame your research questions or hypotheses for your investigation.

**Conclusion**

A conclusion is not merely a summary of your points or a re-statement of your research problem but a synthesis of key points. The conclusion should provide a place for you to restate your research problem persuasively and succinctly, given that the reader has now been presented with all the information about the topic.

**References**

Include your references (Harvard style) for this section.