

## ENGR 10513 Renewable Energy: Photovoltaics & Energy Harvesting

### Term Paper Guidelines for Graduate Students

#### General Topics:

Each graduate student is required to write a term paper on renewable energy. The focus of this paper can be on theories, methods, experiments, materials, devices, systems, and/or applications of one particular technology in renewable energy. You are encouraged to discuss the topic of the term paper with the instructor. **Emphasis:** The important element sought in the term paper include: a thorough survey of the literature on the subject; an in-depth understanding of the phenomena related to the subject and their effects on the society or economy.

#### Term Paper Deadlines:

Week	Date	Due	
4	2/5	Term paper assigned	
4-7		Literature survey; identify a topic	
7	2/26	Topic	Submit your topic through Blackboard under “Content”, “Term Paper – Graduate Student”, “Topic Submission”.
7-13		Literature survey; preparation of term paper	
13	4/11 11:59 PM	Paper (in MS Word format)	Submit your paper through Blackboard under “Content”, “Term Paper – Graduate Student”, “Paper Submission”.
<p><b>Late Submission Penalties:</b>                      The final report is due before midnight on 4/11. The submission time will be determined by the time stamp on Blackboard. Students who turn in the paper late will face penalties:</p> <ul style="list-style-type: none"> <li>• For each 12 hours past due time: 10% mark reduction</li> <li>• More than three days past due time: 0 point for term paper</li> </ul>			
<p><b>Plagiarism Check:</b>                      The SafeAssign function on Blackboard is turned on for students to run plagiarism check themselves. Please make sure you run this function before your final submission.  <u>Any sign of plagiarism will result in an automatic “Fail” for the paper.</u></p>			

**Format:** The term paper (one column, single space, Times New Roman, 12 font size, 8-20 pages) must be typed and include the following sections:

1. Title page: paper title, author’s name, course number and name, semester term, date, affiliation.
2. Abstract (one paragraph, 100-200 words): summary of the paper (key points, results, conclusions, etc.).
3. Introduction: background information about the subject and brief outline of the paper.
4. Main body: main part of the paper, containing a number of sections with figures and/or tables.
5. Conclusion: summary of what has been presented and what conclusions are drawn.
6. References: list of referenced publications (books, journal articles, magazine articles, conference articles, newspaper articles, articles from websites, etc.).
  - The number of references varies depending on how the paper is organized and what topic you select; a well-written term paper typically contains 8-20 references.
  - Cite more than just webpages; a rule of thumb: more than 50% of the references should come from non-webpage resources.
  - Wikipedia should NOT be the place where you find most information for the paper.
  - Use the reference format of *IEEE/ASME Journal of Microelectromechanical Systems*.

**Grade:** The term project will take 10% of the final course grade. The paper will be graded on the relevance of the technology chosen, and the student's ability to extract, from available information on the subject, the key points and concepts. As part of this, the organization of the subject, and quality and clarity in its presentation, will be taken into consideration. The paper is not intended to be a superficial review of the chosen subject; it must emphasize significant ideas and concepts, without burying them in a sea of details. For a given subject, questions as, WHY is such a thing important, WHAT are its key features and limitations, WHEN is it useful, WHERE is it applied, and WHO benefits from it, need to be answered.

Rating	Grade	Description
Excellent	9.5-10	The paper is well organized and well written. It provides a clear and comprehensive analysis of the key issues. Strong evidence and convincing argument are demonstrated throughout the paper. The author does an outstanding job in almost every aspect of the paper.
Very Good	8.5-9.5	The paper has a good focus on the topic. It is written with a logical flow. Some evidence and adequate arguments are provided in the paper. The references are adequate. The paper contains no significant grammatical or spelling errors. One or two major aspects of the paper may be improved.
Good	7.5-8.5	The paper is generally organized and presented. It is written in a satisfactory style, but its focus can be improved with clearer evidence. The content of paper is somewhat unbalanced. The paper may contain a few grammatical or spelling errors. One or two major aspects of the paper can be greatly improved; for example, incomplete references.
Fair	6.5-7.5	The paper is poorly organized and difficult to follow, but still shows some focus on the topic. It has some significant issues; for example, very limited references or incorrect referencing, poor presentation, and inadequate conclusion. The paper has very little evidence or poor arguments of the key issues. It may contain numerous grammatical or spelling errors.
Poor	6.0-6.5	The paper is poorly written and poorly structured. Some important sections, e.g., introduction, conclusion, or references, are missing. The paper has almost no sense of argument or analysis of the related issues. It may contain too many grammatical or spelling errors to convey the ideas.
Fail	0-6.0	The paper has no sense of structure and no indication of analysis. It shows severe flaws in grammar and spelling. <b><u>Any sign of plagiarism will result in an automatic "Fail" for the paper.</u></b>

**NOTE:** References must be read and analyzed. Based on the gained understanding from them, relevant information can be extracted and used in the term paper. However, it is **NOT ACCEPTABLE TO JUST COPY** sections from references.