Session 7: Getting Started!

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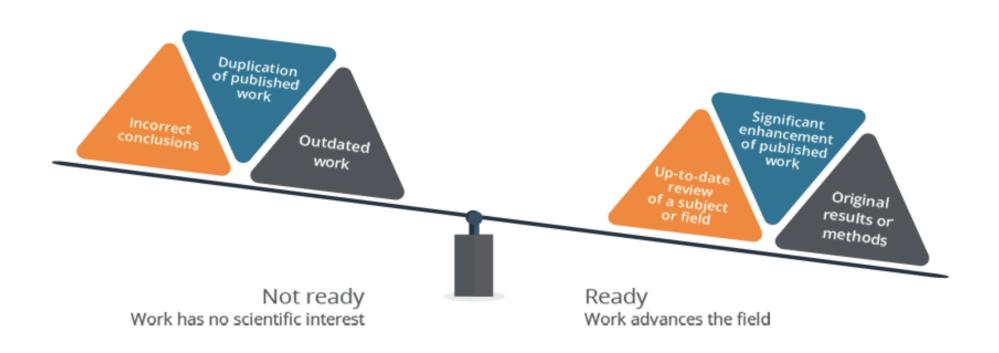
Workshop on Publishing in High Impact Journals

Ecole Nationale Polytechnique Algiers, Algeria Nov 2018





Ready to Write?





What is publishable?

Journals like to publish papers that are going to be widely read and useful to the readers

- Papers that report "original and significant" findings that are likely to be of interest to a broad spectrum of its readers
- Papers that are well organized and well written, with clear statements regarding how the findings relate to and advance the understanding/development of the subject
- Papers that are concise and yet complete in their presentation of the findings

 Leonard V. Interrante

Editor-in-chief, Chemistry of Materials

Presented at in the Symposium on Scientific Publishing, ACS National Meeting, Atlanta, GA March 2006



When to Start?

As soon as possible!

- PhD candidate,
 - Its wise to start early
 - By compiling notes of literature that you read
 - Make it a habit to write little pieces every day
 - Its good to have a review paper submitted within the first year of study
 - When results are flowing in
- Supervisor
 - Encourage the student to write once you spot a potential publishable content



To publish in Q1

- Be aware that Q1 journals are very competitive
- Number of submissions are very high
- Reviewers are very specialized and knowledgeable
- Normally Editor is very selective
 - For example: for IEEE Transaction on Industrial Electronics, if one out of three reviewers reject (but two accept), the paper will be rejected.



Ask these Questions before Starting

For Original Research Article

- The problem to be addressed?
 - Is the problem important?
 - Is it still relevant?
- Your approach/idea/solution
 - Is your idea to solve the problem new?
 - Different than others?
- Your Findings
 - Are the results you obtain superior to previous work?
 - If not, are there special "dimension" can be considered significant?

For Review Article

Is there a similar review paper published in the last three years?



Planning an article

- Consider writing the paper like a "project".
- Organize materials, team. Synergize
- Plan a time-frame. Work around it
- Get advice from "expert". Ask Opinions/Questions.
 Is this paper worth writing?
- Get collaborators to share more data, info.
- If necessary, invite co-author. Don't be selfish!

"If You Fail to Plan, You Plan to Fail"



Planning

- Conduct brain-storming session with all authors
- First, put the ideas in power point form.
- Once agreed, build a framework of the article
 - in a form of comprehensive ToC/outlines
 - What is the main focus of the paper (revolving around the results that is available)
 - What are the important points for each section
 - Determine what diagrams, equations, tables, graphs to include
 - Estimate how much space needed for each section
- Decide who does what



Writing sequence

- Order or writing
 - 1. Experimental: results and and analyses
 - Research process/experimental set-up/simulation set-up/survey questionnaire
 - 3. Theory
 - 4. Introduction
 - 5. Conclusion
 - 6. Title
- Revising, revising, revising
- Polishing
- Proof-reading



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Journal Selection

- Decide early to avoid time wasting.
- Conduct analysis on the purpose and mission of journal.
 - Do they accept review paper? Letters?
- Different journal have own perception of science and how article should be presented.
 - IEEE focus more on practical applications; must include experimental results.
 - Elsevier more on ideas, concepts and data manipulation; simulation results are acceptable.
 - Best to study articles from specific journals.



Journal Selection

- Authors should asses his own level of research to suit the journal difficulty.
 - If results is "incremental, consider sending to a lower ranked journal.
- Substantial reference form the same journal should be cited to prove relevance.
- Consider turn-around-time
 - crucial fro PhD student
 - Look for "average" review time (from first submission to correction, acceptance).
 - Publication date may not be very important.



Example of a Journal Writing Project

<u>Title</u>: PV Charging of EV: A technological and status

review

Authors: Rauf Bhatti (RB), Zainal Salam (ZS),

Junaidi Aziz (JA), Pui Yee Kong (YK)

Target date of submission: October 2014.

Article type: Review Paper

Target journal:

Primary: Renewable Sustainable Energy Review (Q1; 5.6 IF)

Secondary: Applied Energy, Q1 (5.4 IF)

Estimated length:

10 pages (final format),12 Diagrams, 6 Tables, 120 references



1.0 Introduction (ZS)

Future direction of auto industry; Environmental damage due to ICE (internal combustion engine); Development of EV by major auto companies; Ideas of charging; prospects of PV charging.

Focus: to review the technology of charging, with emphasis on solar PV.

Novelty: So far, no recent review paper on similar topic; latest was ten years ago with limited coverage on PV; many developments have taken place since then.

Diagram: None

Estimated length: 1 page



2.0 General PV system (ZS)

Structure of PV system in general, MPPT, I-V curve to show relationship P, I, V, G

<u>Table</u>: Example picture, I-V, P-V curve, model of cell;

Diagram: None

Estimated length: 1.5 page

3.0 Background on EV (JA)

General concept; Three main types of EV: (1) directly powered from external power sources, (2) powered by stored electricity originally from external power source, (3) powered by an on-board electrical generator (ICE).

<u>Diagram</u>: Example picture of (1)-(3).

Table: Types and ratings of commercial EV

Estimated length: 2 pages



4.0 Electric Vehicle (EV)/Hybrid plug-in EV (HPEV) (JA)

Definition of EV/HEV/PHEV, Categorization, Block diagram of EV components and system, Explain functionality of each type;

<u>Diagram</u>: 1. Example of PV car structure;

Table: 1. List of the current manufactures, power range, battery

capacity, voltage, charging methods

Estimated length: 2 pages

5.0 EV Charging Methods (YK)

Definition of EV charging; Three phase AC-DC, Single phase AC-DC,

On board, Off board, Fast charger, Opportunity charging, Standards.

Diagram: 1. Off-board, 2. on-board charging block diagram

Table: 1. Charging power levels for different car.

<u>Table:</u> 2. International Charging Codes and Standards for Ev

Estimated length: 3 pages.



6.0 PV charging of EV (RB)

Different PV charging methods; Direct DC-DC charging using PV only; Grid + PV charging; Charging of EV using PV; controlled system to charge EV from hybrid RE sources (PV, wind, Grid); Optimization techniques, energy management;

Diagram: 1. Charging modes (5 sets),

Diagram: 2. Control structure PV station, Battery-wind hybrid

Table: Power ratings of available PV charging station

Estimated length: 3 pages

7.0 Discussions (RB)

Other new concepts: Embedded cells on EV body for PV (futuristic); Battery swapping; Chassis swapping - batteries, electric motor and wheels.

Diagram: None

Table: Comparison table for all types of PV charging

Estimated length: 1 page



- Conclusion (ZS)
- Abstract (ZS)
- References (RB)
 - **100-120**
 - ❖At least 10-15 from RSER or APEN
 - ❖ At least 5-10% from our previous paper
- Initial proof-reading: ZS
- Final proof-reading: external



The Results!

Renewable and Sustainable Energy Reviews 54 (2016) 34-47



Contents lists available at ScienceDirect

Renewable and Sustainable Energy Reviews





Electric vehicles charging using photovoltaic: Status and technological review



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BEST WISHES IN YOUR NEXT JOURNAL WRITING PROJECT!





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