

APSE Task Force 3: Best Practice Guidelines for Publishing in Pavement Science and Engineering

Summary

This task force aims to identify and disseminate the best practice for publishing in pavement science and engineering community, especially for students and junior researchers. The guidelines available from the main publishers in this field are used as reference. The APSE members who are serving as Editor-in-Chiefs (EiC) or Associate Editors (AE) of academic journals have been reached out to for sharing their experience and advice. This task force addresses various topics including but not limited to open-access versus closed-access (subscription-based) publications, citations, and originality.

Dr. Zhen Leng from The Hong Kong Polytechnic University is the leader of this task force, assisted by Dr. Siqi Wang from Southeast University, Dr. Angeli Jayme from the University of Illinois at Urbana-Champaign, and Dr.-Ing. Miomir Miljković from the University of Niš. The other members of this task force include Dr. Victor Garcia (US Army - Engineer Research and Development Center), Dr. Jenny Liu (Missouri University of Science and Technology), Dr. Ajayshankar Jagadeesh (TU Delft), Dr. Pengfei Liu (RWTH Aachen University), Dr. Guoyang Lu (City University of Hong Kong), Dr. Bharat Rajan (IIT Bombay), Dr. Wynand Steyn (University of Pretoria), and Dr. Haopeng Wang (University of Nottingham).

This report summarizes the main outcomes of this task force. The first part is the report on the interviews with EiCs and AEs, led by Siqi Wang. The interview questions and responses from interviewees are summarized. The interview questions mainly focus on the main ethical standards that should be followed by a student or a junior professional when publishing. The second part comprises of the publication resources issued by publishers as well as selected online tutorial videos, led by Angeli Jayme. The third part presents the past experience of reviewers and authors regarding article writing and reviewing, led by Miomir Miljković.

Part 1: Interview Report from EiCs and AEs

On behalf of APSE Task Force 3, Dr. Siqi Wang has interviewed several scholars in the pavement community who serve as EiCs or AEs of academic journals. The interview questions were focused on how a student or junior professional can publish good papers while following ethical standards. Ethical issues were discussed, including but not limited to self-citation, paper and data duplication, plagiarism, and other issues during the publishing and reviewing processes. The objective was to raise alarms for authors and reviewers to be aware of these issues. The interviews were conducted via Zoom. The interview transcripts have been summarized and presented in the narrative form in this report. The interviewees are briefly introduced as follows (ranked by interview time order):

Shane Underwood is an AE of the Journal of Transportation Engineering, Part B: Pavements. He is appointed as Professor at the Department of Civil, Construction, and Environmental Engineering of the North Carolina State University. Prior to this appointment, he was an Assistant Professor at the School of Sustainable Engineering and the Built Environment within the Ira A. Fulton Schools of Engineering of the Arizona State University. He received a doctorate degree in Civil Engineering from the North Carolina State University in December 2011. Dr. Underwood teaches courses in pavement engineering and infrastructure materials and has received multiple awards for his teaching and service.

Baoshan Huang is an EiC of the Journal of Cleaner Materials, AE of the Journal of Cleaner Production, the ASCE Journal of Materials in Civil Engineering, and the ASCE Journal of Transportation Engineering, Part B: Pavements. He joined the faculty of the Department of Civil and Environmental Engineering at the University of Tennessee in January 2002 and is the Edwin G Burdette Professor of Civil Engineering. He received his Ph.D. degree in civil engineering from the Louisiana State University, as well as his M.S. and B.S. degrees from Tongji University in Shanghai, China. Before joining the University of Tennessee, he was a senior asphalt research engineer at the Louisiana Department of Transportation and Development (LADOTD). His professional career includes over 35 years of experience in transportation and geotechnical engineering in academia, industry, and government agencies. He is registered as a professional engineer in Louisiana.

Imad L. Al-Qadi is an EiC of International Journal of Pavement Engineering. He is appointed as a Grainger Distinguished Chair in Engineering, Director of the Illinois Center for Transportation (ICT), the Advanced Transportation Research and Engineering Laboratory (ATREL) and the Smart Transportation Infrastructure Initiative (STII) at the University of Illinois at Urbana-Champaign (UIUC). He served as an instructor and research engineer at Penn State University from 1988 to 1990. He was a member of the faculty of the Charles E. Via Jr. Department of Civil and Environmental Engineering at Virginia Tech from 1990 to 2004. By 1998, he had been promoted to full professor, and shortly after named the Charles E. Via Jr. Professor. Al-Qadi holds a B.S. (1984) from Yarmouk University in Jordan and M.Eng. (1986) and Ph.D. (1990) degrees from Penn State University, all in civil engineering.

Gabriele Tebaldi is an EiC of Road Materials and Pavement Design and an AE of Materials and Structures. He has been a professor in Civil Engineering at the University of Parma since 2005. He was also a delegate for the Erasmus Program for Civil and Environmental Engineering (2008-2016) and a chairman of the Committee for Students' International Mobility of Department of Engineering and Architecture since January 2017. He received his Ph.D. in Road, Railways and Airport Building from Università degli Studi di Ancona (now Università Politecnica delle Marche) in 2000 and a degree in

Civil Engineering (degree antecedent Bologna Process and equivalent to B. S. and M.S. combined) from Università degli Studi di Parma in 1996.

Takeaway Messages from the EiCs and AEs

The takeaway messages can be summarized as follows:

- The scope and the potential audience of any journal should be thoroughly considered when submitting manuscripts. The publication time and impact factor should also be considered.
- Integrity issues may come from how research work is distributed or from the requirements for academic promotion. Duplication and fabrication are the most-recognized issues in the community. Building up the reputation in the pavement community is a long-term process, which can be easily jeopardized if one is caught up with these issues.
- It is expected to build a well-recognized conference with highly-recognized proceedings in the pavement community. ASPE is working towards that aim and is in good shape.
- It is always acceptable to contact the editors directly when a manuscript has been reviewed for too long. One should be polite, professional, and straightforward in correspondence.
- It is a good idea to establish open-access journals in the pavement community. However, the publication fees and operational mode of these journals may cause integrity issues.
- Double-blind review is recommended during the manuscript evaluation process. A cover letter may not be very important when submitting manuscripts, except when authors need to bring the editor's attention to specific issues.
- Authorship orders should be decided based on their contributions. Usually, the first author should be the student or junior researcher the most directly involved and responsible for most of the work. The PI who is responsible for the entire study is usually the corresponding author.
- Best ways to promote one's research: make appearances at top-notch conferences, publish in top journals, and make the best use of social media. One should always target the audience when presenting his/her work.

Interview Report

The questions in the underline format were raised, and the responses by the interviewees are provided after each question.

How to identify journals that are appropriate for manuscript submissions? For example, if the research involves a multi-disciplinary study, which is often the case in pavement engineering, how to choose the right journal for submission?

Shane Underwood

- The advisor should discuss the manuscript with the student. Journals can be multi-disciplinary to some degree. The student's goals should be considered when choosing journals, for example, the ranking of the journals in the country/region where the student is going to seek a job at.
- Publication time should be considered. The interviewee doesn't chase journals with a fringe of applicability. In addition, one may get a reputation for sending manuscripts to these journals just to try. This could harm researchers because the community is very small. One exemption is that if the paper has someone outside the pavement discipline who thinks that it is worth publishing to an audience in that field. In that case then it is worth considering, but realize that this will likely take more time and energy.

Baoshan Huang

- There are way more journal options comparing to 20 years ago when journal publications typically took 18-24 months. Depends on manuscripts' contents, journals that are beyond the traditional pavement field should also be considered. Impact factors are important but should not be the only consideration factor.
- The manuscript's purpose plays a very important role when choosing journals. Authors should target potential readers when choosing the journal.

Imad L. Al-Qadi

- Two factors should be considered when submitting manuscripts: i) whether the content of the manuscript fits within the scope of the journal; and ii) the manuscript will be read by peers in the discipline when published.

Gabriele Tebaldi

- The manuscript needs to fit the scope of the journal. The ranking and impact factor also needs to be considered. Authors can also consider the expertise of journal editors in the discipline. What kind of message the author wants to send can be reflected in the submitted journals, which usually serve a specific community.
- Try to diversify the publications in journals and proceedings, which is beneficial for conducting multidisciplinary research.

How do you handle research integrity issues?

Shane Underwood

- The cause of integrity issues may come from two parts. One part is how the research work is distributed. By the nature of academic work, people often need to attend conferences and publish journal papers simultaneously, which could create an overlapping of contents because some conferences also require full paper submission. The second part is motivation. The evaluation

metrics from universities or institutes often require numbers and rankings of publications as one of the most important recruiting criteria. Some of these measures can be good because for some it clearly lays out the types of activities that align with the mission of the institution, but overemphasis on these items can lead to ethical violations.

- Unethical work may get away from peer reviewing. This can be improved by inviting knowledgeable reviewers from separate fields, which is still an ongoing effort for journal editors.

Baoshan Huang

- I was recently involved to deal with complaints of data integrity and duplication issues for a published journal paper. Finally, the paper was identified with data integrity issues problems and was retracted by the publisher. These retraction records remain online with explanations of reasons why they are retracted. Academic integrity always comes first. In a short time, one may take advantage of the system and get additional publications, but these issues will come back sooner or later.

Imad L. Al-Qadi

- i) Citing others' work in the publication; ii) recognize the contribution of others and professionally critique work that contradicts the publication; iii) Acknowledge the contribution of others; iv) don't accept to be part of a paper if the contribution is not fundamental and significant ($\sim >25\%$); v) do not add co-authors who don't contribute significantly to the work; and vi) work with peers and respect the use of sharing data.

Gabriele Tebaldi

Authors should be very careful during editing and proofreading. Borrowing statements from the literature may cause an "honest mistake," which should still be avoided. It's also challenging for the editors and reviewers to understand whether a manuscript is a real original work. Even with the double-blind review, by looking at the contents, the reviewers may already know the group that drafts this manuscript, which could also cause some issues.

CS and EE majors have highly recognized conference papers. Can we have conference papers that would be equally recognized as journal papers in pavement engineering?

Shane Underwood

- CS and EE disciplines need to get things out quickly. If we want our conferences to be impactful, we need to make it clear that rapid dissemination of our content will have immediate impact.
- The metrics in recruitment and promotion policies also matter. The search committee may have questions if someone has a few journal publications with many conference papers.

Baoshan Huang

- In the pavement community, a core event is lacking. TRB might be one, but it's too broad. That's partly why TRR has a low impact factor. APSE has the potential to become a dedicated, core event for the pavement community.

Imad L. Al-Qadi

- It is good to have one in the pavement engineering community. APSE's goal was to establish an APSE conference, which can be established if an independent board oversees it. It could take years of effort to establish well-recognized conferences within the pavement community.
- Current conference papers in the pavement community are used for journal promotions, which could reduce the journal's impact and reputation, while allowing marginal and "sliced" work to be presented. Hence, APSE is expected to be in a good position to establish an independent conference from scratch.

Gabriele Tebaldi

- Top conference attendance and proceeding publications are not well recognized during the promotion process in the job market in pavement engineering. That said, attending and presenting one's work at conferences, especially top-notch ones, is beneficial for promoting one's work.

I found out my paper has been reviewed for too long. What should I do under this circumstance, withdraw, or keep pushing the editor?

Shane Underwood

- If no responses have been received from the editor themselves, then there is nothing wrong with following up. It is ok to consider pulling out your paper if there is still no response. Keep in mind that editors have full-time jobs and are highly successful. Probably it is more frustrating for the editors than the authors that a paper is not reviewed because the journal may lose a good paper.

Baoshan Huang

- Authors should not push the journal too hard. It's not benefiting the dissemination of knowledge and high-quality publication. Scholars can always send reminders to journal editors professionally and politely.

Imad L. Al-Qadi

- It is ok to contact the editor and the publisher. Authors need to be patient and polite when dealing with editors. Email correspondences need to be courteous and concise because editorial and reviewing processes are voluntary. For example, an AE could have difficulties finding reviewers for the manuscript, which are legitimate delays in the process. Withdraw paper is not a good approach.

Gabriele Tebaldi

- This is unfortunate, but frequently happens that the review process takes time: finding good reviewers and having their report may be a long process. For some journals, the interviewees suggest rejecting the manuscript if they don't get enough reviewers after four months of submission.
- When replying to the review comments, the authors need to be straightforward and jump right to the comments, especially where and how the modifications have been made. It is suggested to prepare a very detailed reply because the reviewer may already forget the contents of the original manuscript. The authors can also ask someone outside the discipline to read and check he/she can understand the manuscript.

What do you think about open-access and preprinted journals?

Shane Underwood

- Open-access publications are often expensive. This is an issue for young scholars who do not have too much funding for publications.
- The interviewee is ok with pre-prints or early release because it takes so long to see the paper from some publishers.

Baoshan Huang

- It seems that the market trend is going to open access. That would leave the question of whether authors have the resource to pay for publication. That would be a hurdle for high-quality research distribution. I hope the market can figure this out.

Imad L. Al-Qadi

- It is a great idea, but is extremely expensive, and cost prohibitive. It may jeopardize paper quality in the future as the people who can afford the cost are the ones who will publish. Examples exist already when an author has to pay to publish a paper with couple of week in some disciplines (such journals are respected by scholars and it would hurt young scholars to publish in). Hence, I am against open access in the current format (including the high cost). The publisher has already prepared itself for this by increasing the number of journals significantly in the past a few years in many areas.

Gabriele Tebaldi

- Most journals now have open access options when publishing, which doesn't affect the review process. A hybrid mode may be the right direction to work towards.

- In general the cost of open-access publication is a big issue for young researchers and for small research groups.
- It should be noted that although some open-access papers have many citations, that could be the reason for easy access instead of its scientific value. That is another issue with open-access papers.

*What do you think about blind peer-reviewing in which the authors' names are removed?
Is the double-blind policy the goal of the peer-reviewing process?*

Shane Underwood

- Double-blinded reviewing could be better for young scholars. It is not because they would be negatively judged, but it helps to ensure that any potential reviewer bias is reduced. Overall, it does not make too much of a difference if the journal can find good reviewers for the manuscript.

Baoshan Huang

- In an ideal case, if the reviewers are very professional, there's no need for double-blind reviewing. Reviewers can be affected by their connections. That's why double-blind peer reviewing becomes necessary.

Imad L. Al-Qadi

- Yes. It should be double-blinded. The only drawback is the current trend of double and triple submissions. It will be difficult to detect in that case. I noted double and even triple submission in the past few years and it is simply unethical and waste of reviewers' time.

How important is the cover letter when submitting a journal paper? What should be included in a nice cover letter for new submission/revision/resubmission?

Shane Underwood

- For manuscripts that are, from an initial glance, at the fringe of the topics in a journal, a cover letter should be prepared carefully to explain to the editor exactly why you feel the paper is a fit for the journal and of interest to the readers of that journal. This could help get your manuscript past the editor. Another way is to send the editor a well-drafted email. The editor can decide whether the manuscript fits the journal in 30 seconds other than going through the editorial management system, which takes a much longer time. This will save much time for both sides.

Baoshan Huang

- Editors don't read cover letters every time. However, if the manuscript is rejected for some reason, or the authors want to bring the editor's attention, a good cover letter is extremely important. That is especially true if you are resubmitting or revising your papers.

Imad L. Al-Qadi

- Not important, unless something is needed to share with the editor. It needs to be short and straight to the point. Usually, cover letters use templates. Some journals even don't require cover letters. Same applies to email correspondence.

How to decide the names and order of authorship? A large project may involve individuals with various types of contributions (drafting, raw data collection, processing, proofreading, etc.). How to balance each contributor's work?

Shane Underwood

- Students usually are the first author because they draft the manuscript. The PI's name is at the end. The interviewee thinks the first author should be the one who does most of the writing and the majority of the research work. The interviewee discusses other authors' contributions with the first author.

Baoshan Huang

- The first author should typically be the one who drafts the manuscript. The corresponding author should be the one responsible for data, usually the professor or PI responsible for the project. The authorship sequence should be decided by their contributions to this study. For example, lab technicians do not contribute to the research ideas in most cases. They should not be coauthors, then.

Imad L. Al-Qadi

- It is suggested to arrange the authorship based on the total "scholarly" effort. If less than ~20% of the contribution, the name should go to the acknowledgment.

Gabriele Tebaldi

- Usually, the first author should be the one who did the biggest part of the work, and the last person should be the person that is responsible for the research, usually the corresponding author. When several coauthors have the same level of contributions, they can be put in alphabetic order.

Any recommendations to promote one's research and papers in the community?

Shane Underwood

- Social media like LinkedIn would help. Journals may have highlighted publications as promotions. If someone has a large social network, others will at least know this person's work without reading detailed papers. This helps build up some expertise. Some interviewees

recommend ASCE daily push email, which is a good way to catch up with the latest interest publications.

Baoshan Huang

- Trying to publish in journals that have the most impact on the particular study area. Publication time also needs to be considered.

Imad L. Al-Qadi

- Make appearances at conferences and present one's research work. Get the chance to present your work at top conferences in your field. Share research work with colleagues and peers in the discipline.

Gabriele Tebaldi

- Always target the audience when presenting and promoting one's work. Presenters need to identify the audience's capability and preferences before presenting. Some may just need to know a general idea, while others may be interested in technical details.
- Presenting papers at big conferences in a specific major can distribute and promote one's work in a more efficient way than journal publications. Answering questions from the audience can help improve the quality of ongoing and future research.

Part 2: Resources for Publication in Pavement Science and Engineering

Selected journals that may publish papers in pavement science and engineering are listed in the following table (ordered alphabetically by the journal names), which also includes information on the journal start year, impact factor, corresponding author services, and publisher. The Task Force recommends storing the presented information in an editable platform, e.g., Google spreadsheet, to enable easy update of the list as needed.

Journal	Start Year	Impact Factor	Additional Info	Publisher
ACS Sustainable Chemistry & Engineering	-	9.224	Author Services	ACS
Cleaner Materials	2022	-	Author Services	Elsevier
Composite Part B: Engineering	-	11.32	Author Services	Elsevier
Computer-Aided Civil and Infrastructure Engineering	1986	11.775	Author Services	Wiley
Construction and Building Materials	1999	6.141	Author Services	Elsevier
Fuel	1948	8.035	Author Services	Elsevier
International Journal of Pavement Engineering	2001	4.139	Author Services	Taylor & Francis
International Journal of Pavement Research and Technology	2019	-	Authors & editors	Springer
Journal of Cleaner Production	1993	11.07	Author Services	Elsevier
Journal of Engineering Mechanics	1956	2.62	Author Services	ASCE
Journal of Materials in Civil Engineering	1989	3.266	Author Services	ASCE
Journal of Transportation Engineering, Part A: Systems	1956	1.774	Author Services	ASCE

Journal of Transportation Engineering: Part B Pavements	2017	1.761	Author Services	ASCE
Journal of Testing and Evaluation	1973	1.33	Author Services	ASTM
Materials and Design	1980	9.42	Author Services	Elsevier
Materials Structure	1968	4.285	Author Services	Springer
Measurement	-	5.13	Author Services	Elsevier
Mechanics of Time-Dependent Materials	1997	2.54	Author Services	Springer
Resources, Conservation and Recycling	1988	13.716	Author Services	Elsevier
Road Materials and Pavement Design	2000	3.792	Author Services	Taylor & Francis
Science of The Total Environment	1972	10.753	Author Services	Elsevier
Transportation Research Record	1996	1.56	Author Services	SAGE Publishing
Transportation Geotechnics	-	4.938	Author Services	Elsevier
Transportation Research Part D: Transport and Environment	-	7.041	Author Services	Elsevier

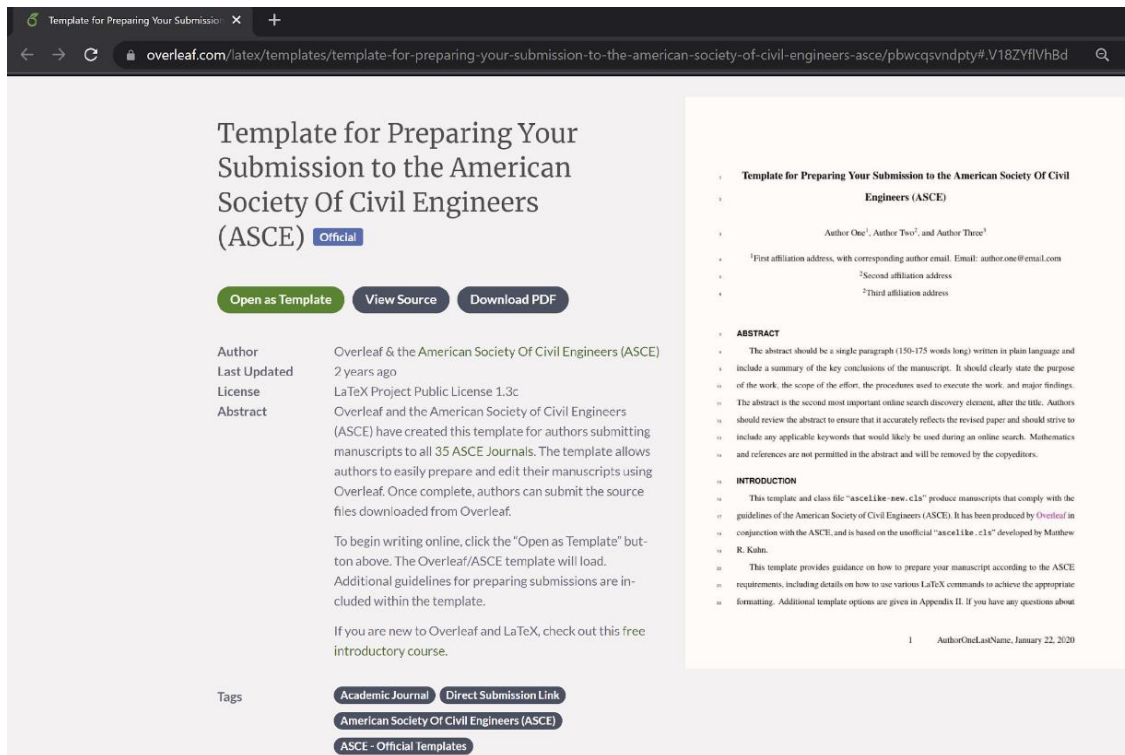
As new or experienced authors prepare new manuscripts for publication, all are encouraged to check baseline resources that are provided by the publishers. As an example, the International Journal of Pavement Engineering and Road Materials and Pavement Design, as part of the Taylor & Francis Group, have available resources (“e-book”) on:

- Choosing the “right” journal
- Preparing an effective research paper
- Article submission and peer review (process in navigating the peer review process)
- Research impact (creating, capturing, and evaluating impact)

There are also more detailed author tutorials in writing a manuscript, which may be of interest to new authors and researchers, including topics on:

- Manuscript structure
- References and article types
- Titles, abstracts, and keywords
- Introduction, methods, and materials
- Results
- Images
- Formatting

Particularly, a free guide that is directly useful to civil engineers is the American Society of Civil Engineers (ASCE), “Publishing in ASCE Journals: A Guide for Authors.” Moreover, LaTeX templates within Overleaf are also available—one of which is the official ASCE template that has predefined sections and formatting inputs for authors to directly use. A snapshot of the Overleaf template is shown below.



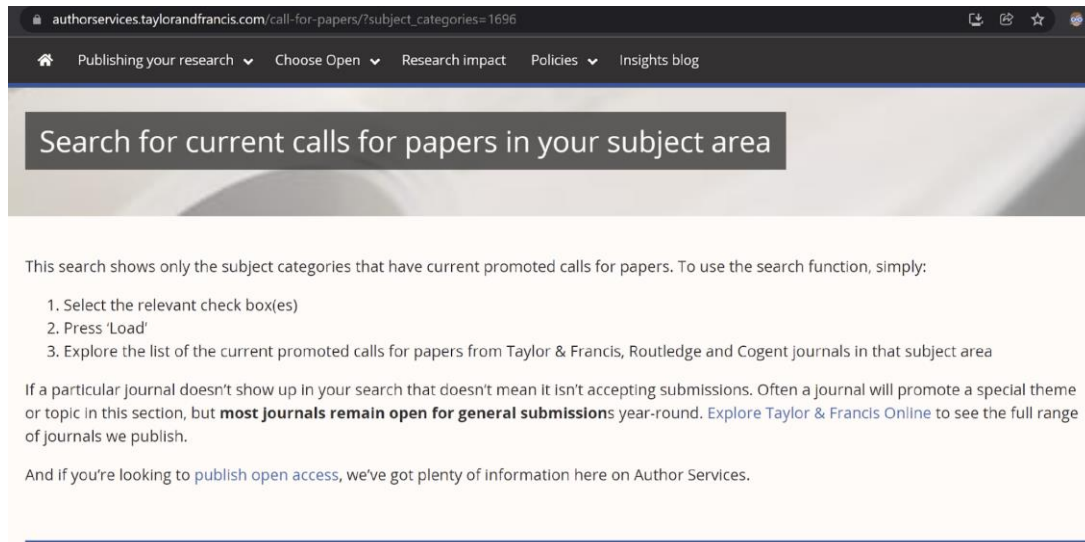
The screenshot shows the Overleaf website interface for the ASCE template. The main heading is "Template for Preparing Your Submission to the American Society Of Civil Engineers (ASCE)" with an "Official" badge. Below the heading are three buttons: "Open as Template", "View Source", and "Download PDF". To the left, there is a metadata section with fields for Author, Last Updated, License, and Abstract. To the right, a preview of the manuscript is shown, including the title, author names, affiliation addresses, and sections for ABSTRACT and INTRODUCTION.

Blogs or short articles are also available on topics regarding

- [Next steps when a paper is rejected](#)
- [Turning thesis chapters into journal articles](#)
- [Defining the right target audience](#)
- Tips on [illustrations](#) and [infographics](#)
- [Dissemination via “graphical abstracts”](#)
- [Free resources in promoting your research](#)

- [Writing for an interdisciplinary audience](#)

Moreover, in line with emerging topics, journals are also keen in posting a “Call for Papers,” wherein sometime the intent is to generate a special issue that focuses on specific topics. An example of such *Call for Papers* is shown below. Hence, authors are encouraged to subscribe to relevant journals as focused opportunities in highlighting your research and increasing its corresponding impact may arise.



Tips for Choosing a Journal

Carefully selecting the journal for your publication affects its reach and impact. Hence, one should not only consider the impact factor metric, but most importantly are the audience that the authors intend to reach and share the new research with. Recently, publishers are offering “journal suggester” website, wherein one can input some text and the tool will recommend relevant journals that may be of interest to the author. A sample image of the journal suggester via an artificial intelligence experiment, in beta version, is shown in the next page.

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Journal Suggester

BETA

Helping you find the best home for your research article

There are two easy steps

Step 1: Paste in the full abstract of your article.
The suggestions will be more accurate if you use a full abstract containing relevant keywords.

Step 2: Click on 'Reveal suggested journals' to see a short description of the journal and some citation and speed metrics.

A thermomechanical coupling between a hyper-viscoelastic tire and a representative pavement layer was conducted to assess the effect of various temperature profiles on the mechanical behavior of a rolling truck tire. The two deformable bodies, namely the tire and pavement layer, were subjected to steady-state-uniform and non-uniform temperature profiles to identify the significance of considering temperature as a variable in contact-stress prediction. A myriad of ambient, internal air, and pavement-surface conditions were simulated, along with combinations of applied tire load, tire-inflation pressure, and traveling speed. Analogous to winter, the low temperature profiles induced a smaller tire-pavement contact area that resulted in stress localization. On the other hand, under high temperature conditions during the summer, higher tire deformation resulted in lower contact-stress magnitudes

A journal finder via Elsevier is also available, as shown below.

LOOKING TO FIND THE RIGHT JOURNAL FOR YOUR MANUSCRIPT?

Simply add your paper abstract and *JournalFinder* will use smart search technology and field-of-research specific vocabularies to match your paper to its perfect home.

FIND YOUR PERFECT JOURNAL:
journalfinder.elsevier.com

FIND THE RIGHT JOURNAL FOR YOUR MANUSCRIPT

FIND YOUR PERFECT JOURNAL:
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Or from SAGE Publishing, the publisher for the Transportation Research Record:

Journal Recommender [BETA]



Find relevant journals for your manuscript, verify against aims & scope, and submit to one directly or use [SAGE Path](#).

Limit to journals in [SAGE Path](#) (our free article transfer service)

Journal Type

- All SAGE Journals
- Gold Open Access Journals OA
- Subscription Journals (most offer hybrid OA option)



Moreover, an abbreviated summary sheet for effective publishing is also provided. An example from Elsevier is show below.

Get published and make an impact with your research

The decisions you make about your publications affect their ultimate impact. The journal you choose, the type of article and the way you write about your research all contribute to the result. So where should you start?



When and what to publish

Do you have a story to tell?
Editors and reviewers are looking for original and innovative research that adds to their field of study, sheds new light on previous findings or joins the dots between work in different areas.

Is there an audience for your story?
The more original and innovative your research, the more people will be interested.

How can you tell your story?

Scholarly articles come in a variety of shapes and sizes which include:

- Full articles
- Letters, short communications and micro articles
- Review papers
- Research elements articles



How to write a great research paper

Scholarly articles often follow a standard structure. Here's how to get the most out of each section.

- **Title:** identify your main topic; make it unambiguous, accurate and specific; keep it short; use keywords; make it interesting.
- **Keywords:** imagine your reader searching for articles: what would they type in the box?
- **Abstract:** you have limited words, use them wisely. Summarize the problem or objective of your research, and its methods, results and conclusions.
- **Introduction:** keep it brief; provide context and background; lead the reader to your hypotheses, research questions, and experimental design or methods.

- **Methods:** include enough detail to enable readers to replicate your research and assess whether the methods justify the conclusions.
- **Results:** present your findings objectively; show how your results contribute to the body of scientific knowledge; include figures and tables where useful.
- **Discussion & conclusions:** explain how your research has moved the body of knowledge forward; make sure your conclusions don't extend beyond your results.
- **References:** always acknowledge the work you're building on. Tip: use Mendeley Reference Manager (<https://www.mendeley.com/>) to store, search, organize, note, share and cite.

Language issues can mean the difference between acceptance and rejection. It's important to ensure the language you use is clear and error-free.



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How to choose the best journal for your work

Publishing your research in the right journal can help you reach a global audience, make an impact and move forward in your career.

JournalFinder (<https://journalfinder.elsevier.com/>) uses smart search technology and field-of-research-specific vocabularies to match your article to Elsevier journals. Simply enter the title and abstract of your manuscript and you'll get a list of journals best suited to your work.

Journal-level metrics

(<https://www.elsevier.com/authors/journal-authors/measuring-a-journals-impact>) can help you assess your long list of potential journals.

- **Impacts:** several metrics, including CiteScore and Impact Factor
- **Speeds:** review time and publication time
- **Reacts:** downloads and authors



Your open access options

Whatever your discipline, there's an open access home for your research at Elsevier (<https://www.elsevier.com/authors/journal-authors/open-access>). With over 2,300 journals that offer gold open access publishing options, we've got you covered.

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- **Powerful innovation** – access to state-of-the-art innovations that measure your impact and make your life easier.
- **Wide choice** – select the publishing model that's right for you.



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Other useful tools include:

- [Scopus](#): Efficiently pinpoint the most relevant, curated and up-to-date research information.
- [Mendeley](#): Simplify your workflow, accelerate your research.
- [Mendeley Data](#): Discover, collect, share and publish research data.
- [ScienceDirect](#): Find answers, track trends and get in-depth insights.
- [Researcher Academy](#): Prepare for the next step in your research career.
- [Research Integrity](#): Ensure your work contributes to the research community's goal to promote the integrity of research.

Also, you may be interested in Andrew Braham's [Pavinars](#) on

- Literature review
- Writing an abstract
- Writing a journal article
- Reading a journal article
- Giving a presentation

Part 3: Experience of Reviewers and Authors

On behalf of APSE Task Force 3, Dr.-Ing. Miomir Miljković has organized an online questionnaire and collected feedbacks from several scientists in the pavement community who have experience as reviewers and authors in academic journals. The questions were focused on their key experience and the most important improvements of the current practice to ensure high ethical standards and the scientific quality of the published articles. The goal of this survey was to establish a solid background for further advancement of the manuscript writing, submission, and evaluation process. The results of the questionnaire are summarized in their original form in this report.

Takeaway Messages from the Reviewers and Authors

The takeaway messages can be summarized as follows:

- A submitted research manuscript should represent an indisputably original and reproducible scientific contribution with deeper scientific interpretation, which goes beyond a routine technical report.
- The protection of identity of all parties involved in the review process (authors, reviewers, and editors) is essential for an objective assessment of submission's scientific quality.
- The review process must not be used for the self-promotion of reviewers' previous work by requiring its citation. Any potential conflict of interest between an author and a reviewer must be prevented.
- Despite the high pressure to publish in the academic community, the relation between authors and reviewers must be solely dedicated to a high-quality output without 'recycling' or over-partitioning their results.
- Young researchers must be given opportunities to be more actively involved in both authoring and evaluation process.
- Publishing is not restricted to drafting or evaluating an article. A good article starts when the research that leads to the article starts.

Questionnaire Report

The questions in the underline format were raised, and the responses by the interviewees are provided after each question.

Describe/list your experience as a reviewer you find essential for achieving high scientific standards of journal publishing in pavement science and engineering

Interviewee 1

- (1) Well-articulated research problem, properly justified,
- (2) Clearly stated research objectives and scope,
- (3) Pertinent data collection, sound data analysis and conclusion,

(4) Potential applications of the research findings.

Interviewee 2

- At its core, a journal article should either (a) make a new contribution that can be replicated by others OR (b) reinforce a relatively new contribution in the community through additional data or analysis.
- Grounds for rejection: (1) Articles that are more like a technical lab report (e.g. mix A with different proportions of B and test with a standard test C and report results, especially using very limited materials), (2) Articles that use an experimental or analytical technique to “crank out” numbers. For example, use FEM, MD Simulation, AFM microscopy, some rheological indicator test X etc. - feed some input, report the output without any depth, breadth, and interpretation.

Interviewee 3

- Double blind review, journal reputation, quality of published articles.

Interviewee 4

- The practical significance and the novelty of the work have to be clearly mentioned. The methodologies used need to be properly explained in detail for future researchers, to begin with, and improve the existing challenges.

Interviewee 5

- Always be professional when doing peer-reviews because this is the most important doorstep to ensure high quality research to be circulated. Always provide constructive comments and suggestions. Never force or “oversell” individual's research, including the reviewer him/herself, during the review process.

Interviewee 6

- Good knowledge and background in the technical subject matter is needed to judge if there are major flaws in theory or experimentation described in the paper. Whether or not the paper has novel and innovative contributions in research and engineering applications. Often it is good to ask what is new knowledge and why should this paper be read by many and whether it would have long and lasting citation history. If many of these questions raised are positive, this means the paper will achieve high scientific standards as an important contribution to pavement science and engineering.

Interviewee 7

- (1) I review papers continually throughout the year. I try to keep the number of papers to be reviewed low at any given time, as this process takes time, and I like to review carefully;
- (2) I try to provide comments that are as constructive as possible, and to value the work that has been put into the manuscript, while trying to keep a critical point of view;
- (3) At the same time, one of the most common challenges is that the text itself is difficult to follow; this can obscure even good research, and leads me to leaning towards a less favorable review;

- (4) In my perspective, it is essential that the manuscript is readable, well-organized and structured, coherent and consistent (i.e. between claims in the abstract and statements in text and conclusions). Replicability I find more and more challenging every day as many studies, especially computational ones, can be quite specific applications. However, I prefer to make the code available to other researchers.

Interviewee 8

- (1) Only review articles directly related to your area of expertise;
- (2) Avoid reviewing articles by authors you are associated with;
- (3) Control the number of articles that need to be reviewed.

Interviewee 9

- (1) Knowledge of the field & trends,
- (2) Understanding of journal paper formatting & objectives,
- (3) Understanding the mandate/objective of the specific journal.

Interviewee 10

- Reviewer must ensure the originality and novelty of the content. The content must contribute to the progress of the ongoing research in the pavement engineering domain. Reviewer must ensure the reliability of the data and other relevant information provided in the article. Due credit must be given to any other research contents used in the article.

*Describe/list your experience as an **author** you find essential for achieving high ethical standards of journal publishing in pavement science and engineering*

Interviewee 1

- (1) Well-articulated research problem, properly justified;
- (2) Clearly stated research objectives and scope;
- (3) Pertinent data collection, sound data analysis and conclusion;
- (4) Potential applications of the research findings.

Interviewee 2

- Somewhat a mirror image of previous item.

Interviewee 3

- Double blind review, review speed, article quality, professional level of publishers, SCI indexing

Interviewee 4

- Proper referencing of the existing studies need to be done.

Interviewee 5

- People always produce, regardless of research quality, to meet certain requirements in the academic community. We should always produce research work that contribute to the knowledge of community. We need to make sure what we publish is reproducible so anyone who's interested should be able to get similar results and ideas.

Interviewee 6

- One of the most important ethical standards is to give importance to co-author selection and contribution. Make sure that everyone who contributes to the paper writing and to the research conducted and described in the paper has had enough time to read, review, and edited the paper. Often many iterations before submission makes an award winning paper. Make sure the funding source and anyone involved in the research study are properly acknowledged. Make sure that previous research work and literature on the topic is covered well. Also, please do not publish the same content in different duplicate publications. And finally, be cordial and fair about others' research work descriptions if any different or conflicting results are presented.

Interviewee 7

- (1) As an author, I find essential that one submission is presented to one and only one journal at a time, including only original content, giving proper credit to contributors;
- (2) The submission should be reasonably justified as a publication (i.e., quality over quantity in publications);
- (3) The results of the study should be presented impartially.

Interviewee 8

- (1) Don't take chances and think you can meet familiar reviewers;
- (2) Strictly abide by academic norms and handle data seriously;
- (3) Article collaborators should have actual contributions to the article.

Interviewee 9

- (1) Knowledge of the field & trends;
- (2) Understanding the mandate/objective of the specific journal;
- (3) Communication skills in terms of focusing on a message with clear supportive arguments.

Interviewee 10

- The content is the most important factor in an article in the viewpoint of an author or reviewer. The article must put forward a new idea or an improvement in the existing technology or techniques. The authors must acknowledge any contribution properly. The contribution of the author list must be provided accurately. The pavement community must be benefited by the publication for furthering the research or for applying the technologies in the field. The experimental data and analysis must be substantiated with adequate information. The authors must be accountable for any clarification for the information in the article.

Any additional remarks from your perspective as an author

Interviewee 2

- The most important part of authoring or co-authoring a paper is not about the paper at all. A paper is simply documenting the story of a research effort. A good paper starts when the research that leads to the paper starts.

Interviewee 3

- It is tragedy, if we can't avoid the reviewer and author knowing each other in the review process.

Interviewee 6

- I would like to give more opportunities to my MS and PhD students to take the lead in drafting research papers and therefore be the lead authors to gain such learning experience in scientific and technical writing. As educators, it is our role to educate, encourage and motivate the next generation of pavement researchers and leaders.