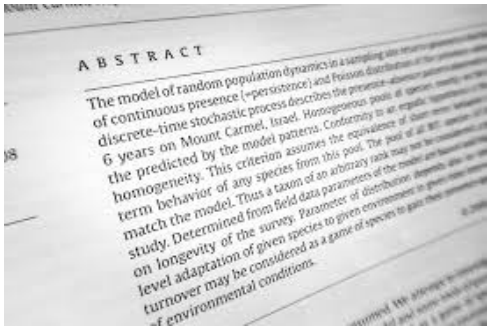
# Homework 2 :
## Making a state-of-the-art


ABSTRACT

The model of random population dynamics in a sampling site ... of continuous presence (=persistence) and Poisson distribution ... discrete-time stochastic process describes the presence-absence ... 6 years on Mount Carmel, Israel. Homogeneous pools of species ... the predicted by the model patterns. Conformity to an ergodic ... homogeneity. This criterion assumes the equivalence of ... term behavior of any species from this pool. The pool of all ... match the model. Thus a taxon of an arbitrary rank may not be ... study. Determined from field data parameters of the model are ... on longevity of the survey. Parameter of distribution depends also ... level adaptation of given species to given environment in given ... turnover may be considered as a game of species to gain ... of environmental conditions.

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## What a state-of-the-art should not be

- A stat-of-the-art should not be a collection of paragraphs detailing the content of a set of papers separately

Bad example of a state-of-the-art review :

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056
Volume: 04 Issue: 03 | Mar -2017 www.irjet.net p-ISSN: 2395-0072

**Seismic Effectiveness of Tuned Mass Damper - A Review**

**Shilpa Chandran.P[1], Dr. CK Prasad Varma Thampan[2]**

*[1]PG Student, Department of Civil Engineering, NSS College of Engineering, Palakkad, India*
*[2]Professor, Department of Civil Engineering, NSS College of Engineering, Palakkad, India*

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## Checking the quality of a per

A simple search on google scholar

https://scholar.google.fr/scholar?hl=fr&as_sdt=0,5&q=seismic+effectiveness+of+tuned+mass+dampers+-+a+review

→ The paper is not present on google scholar. Be careful …

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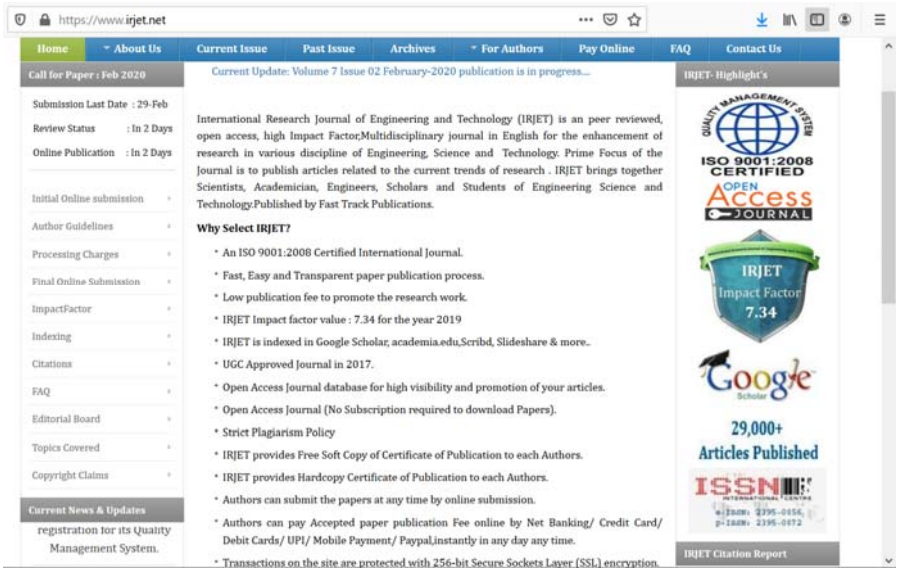
## Checking the quality of a journal




https://www.irjet.net

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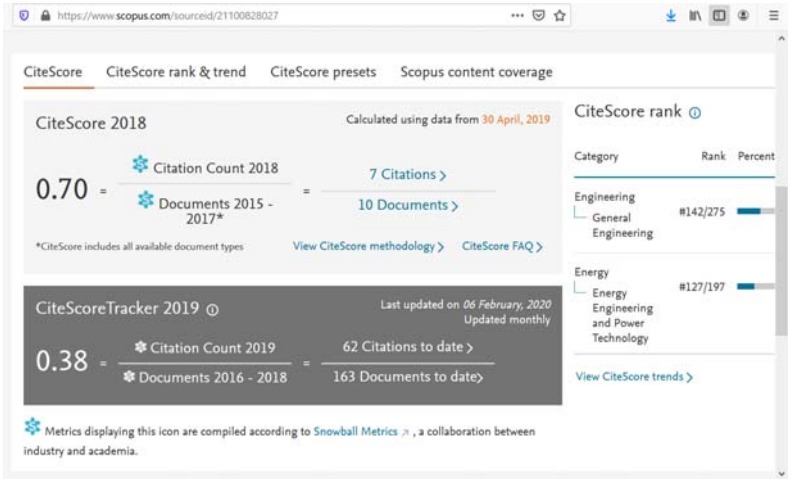
## Checking the quality of a journal

Information found on scopus

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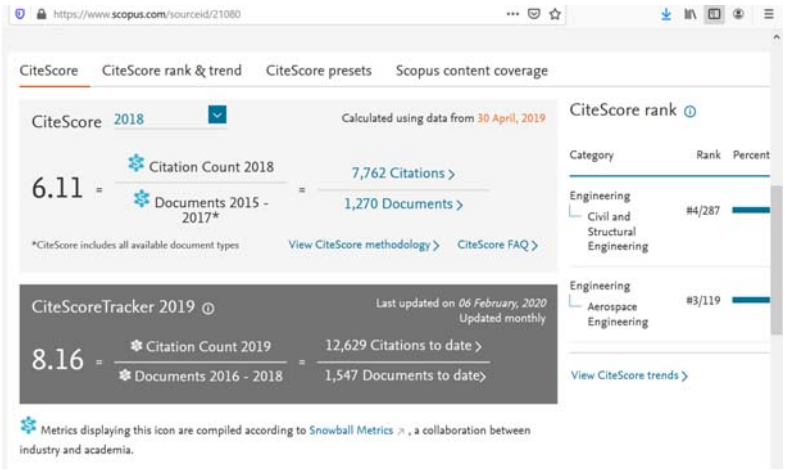
## Checking the quality of a journal

Comparing with a well established journal :

Mechanical Systems and Signal Processing

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## What a state-of-the-art should not be

### 3. LITERATURE REVIEW

Some literature reviewed about TMD in buildings, is presented in this section. There are number of works have been performed on seismic effectiveness of tuned mass damper by different scholars and researchers.

Chi-Chang Lin Jin-Min Ueng, Teng-Ching Huang(1999), "Seismic response reduction of irregular buildings using passive tuned mass dampers": This paper discussed about the practical considerations and vibration control effectiveness of passive tuned mass dampers (PTMDs). And they applied TMD for irregular buildings, modelled as multi-storey torsionally coupled shear buildings, under bi-directional horizontal earthquake excitations. Its moving direction and optimum installation location are determined from the controlled mode shape values. They calculated optimal system parameters of PTMD's by minimizing the mean-square total modal displacement response ratio of controlled mode between the building with and without PTMD under the earthquake excitation from critical direction. The damper able to reduce the building responses effectively.

- This is just a summary of the information found in the paper
- There is no critical assessment of the relevance of the paper
- There is no discussion on limitations, pros and cons of the methods presented in the paper

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## What a state-of-the-art should not be

### 3. CONCLUSIONS

Recently use of seismic control systems has increased, but choosing best damper and installing it into a building is very important for reducing vibration in structures when subjected to seismic loading. Passive control systems are reliable and they doesn't require any external power. TMD is one of the best passive dampers.

Is there a clear link between these conclusions and the literature review ??

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## What a state-of-the-art should be

Based on the information collected, the state-of-the-art should

- Present the literature review in a structured way (type of method/model used, type of application, …)
- Identify the applicability/limitations of the methodologies presented
- Identify what is lacking in the literature in order to solve the problem at hand

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## What a state-of-the-art should be

Example of a well-structured state-of-the-art

Hindawi
Shock and Vibration
Volume 2019, Article ID 9273714, 9 pages
https://doi.org/10.1155/2019/9273714

Hindawi

*Research Article*

**Robust Optimum Design of Multiple Tuned Mass Dampers for Vibration Control in Buildings Subjected to Seismic Excitation**

Luciara Silva Vellar,[1] Sergio Pastor Ontiveros-Pérez,[1] Letícia Fleck Fadel Miguel,[1] and Leandro Fleck Fadel Miguel[2]

Scopus shows that this journal is clearly more serious.

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## Robust optimal design of a MTMD …

The paper contains 60 references.

Structure of the state-of-the art :

- Origin and type of damping devices
- Types of TMDs
- Application to buildings
- Current limitiations (1 mode)
- Proposed approach to overcome limitation
  - MTMD optimization method
  - Taking into account uncertainties

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