

**White, M. (2015). "Patent "Sightings": A comparative analysis of patent citation search tools using case studies from the engineering literature". ASEE Annual Conference and Exposition, Conference Proceedings, June 14, 2015 - June 17, 2015.**

<http://www.asee.org/public/conferences/56/papers/11323/view>

### **Abstract**

Citation searching is a well-known and widely used technique for locating relevant articles via networks of cited references. Specialized citation databases such as Google Scholar, Scopus, and Web of Science facilitate citation searching by indexing hundreds of millions of references from a vast body of journal and conference literature. In recent years, many other discipline-specific databases have added citation indexing and search tools. Academic researchers also use citation metrics such as the Impact Factor (IF) and h-index in order to assess the value and impact of their publications. The techniques used in citation searching and the calculation of citation metrics can also be applied, with appropriate care, to the patent literature. Searching citations in patents and cited patents can retrieve new and relevant information on an infinite number of engineering topics. It can also reveal connections between the journal literature and patents and expose knowledge gaps for further exploration. Universities are increasingly interested in assessing the value and impact of patents awarded to their faculty. A small but growing number of universities led by the University of Maryland and Texas A&M now give credit for patents in faculty tenure and promotion reviews. This paper explores the tools and strategies for searching cited patents and non-patent literature (NPL) references cited in patents using examples from the engineering literature. The author discusses patent citation practices and how citations appear in patent documents and databases. Strategies for searching patent and NPL citations in patents in selected databases are compared and discussed, noting their respective advantages and limitations. The author also explains the potential benefits and pitfalls of applying popular citation metrics to faculty patents and university patent portfolios.