

2017 Report on the *IEEE Transactions on Education* Submitted to the Board of Governors of the IEEE Education Society

Submitted by Jeffrey E. Froyd, Editor-in-Chief, IEEE Transactions on Education

Date: 25 June 25, 2017

I will be unable to attend the meeting of the Board of Governors of the IEEE Education Society at the 2017 ASEE Annual Conference and Exposition because I am double booked and think I should participate in the reception sponsored by the Department of Engineering Education at The Ohio State University. Please see note on change of position below. Since I will not be present at the meeting, I am submitting this report in lieu of my attendance.

Bibliometric Indicators

The 2016 Journal Citation Report has been released and the bibliometric indicators suggest some progress is being made toward improving the quality of the journal.

	2015	2016
Two-year Impact Factor	1.33	1.727
Five-year Impact Factor	1.255	1.846
Eigenfactor Score	0.00148	0.00125
Article Influence Score	0.301	0.310

The [Two-year] Impact Factor and the Five-year Impact Factor are designed to capture the popularity of a journal. The Eigenfactor (EF) and Article Influence (AI) score measure the journal's prestige. Increases in Two-year and Five-year Impact Factors indicate that the journal is being more widely cited. However, small and opposing changes in the Eigenfactor Score and Article Influence Score indicate that the prestige of the journal is unchanged, so there more improvements are needed.

Special Issues

Special issues are one way to draw more attention to the journal and generate interest and articles on timely topics.

A special section on Maker Learning in Computer Science and Engineering Education was published in February 2017. It was published in tandem with a special "sister" issue of the *IEEE Transactions on Learning Technologies* (TLT) on the topic of Learning Through Wearable Technologies and the Internet of Things. Mark Lee did outstanding work serving as the Guest Editor. Originally, a special issue on the

topic was envisioned, but an insufficient number of manuscripts that met the review criteria was submitted, so a special section on the topic was published.

Efforts are underway to publish two special issues within the next 18 months or so. The first special issue, Computing in Engineering, is being handled by two Guest Editors: Leen-Kiat Soh and Steve Cooper, both at the University of Nebraska, Lincoln. Manuscripts have been submitted for the first special issue and are being evaluated by reviewers and the Guest Editors. The second special issue, Increasing the Socio-Cultural Diversity of Electrical and Computer Engineering and Related Fields, is being handled by four Guest Editors: Laura Bottomley (North Carolina State University), Shannon Chance (Dublin Institute of Technology), Karen Panetta (Tufts University), and Bill Williams (Instituto Politécnico De Setúbal and CEG-IST, Universidade De Lisboa). Structured abstracts, which are proposals for manuscripts, have been submitted and are being evaluated by the Guest Editors.

In my vision for future special issues, Guest Editors will represent a greater diversity of IEEE regions. My reason for this is twofold: (a) to provide a greater diversity of global perspectives and (b) to support a global community on engineering education by having people from different IEEE regions collaborate. More work needs to be done to prepare a set of guidelines for future special issues.

A poll of the Associate Editors generated a long list of potential topics for future special issues. The Board of Governors of the IEEE Education Society might generate additional topics. However, the primary limiting factor in adding more special issues is identifying Guest Editors who can apply the review criteria in evaluating manuscripts for special issues and who are willing to do the considerable work associated with serving as a Guest Editor. Another challenge in publishing a special issue is finding a sufficient number of manuscripts that meet the published review criteria. This challenge was illustrated by the special section on Maker Learning in Computer Science and Engineering Education.

Manuscript Submissions

As of 25 June 2017, 213 manuscripts have been submitted to the IEEE Transactions on Education. If the number is doubled, then approximately 426 manuscripts will be submitted to the journal in 2017. Since there were about 20-25 abstracts submitted for the special issue on Increasing the Socio-Cultural Diversity of Electrical and Computer Engineering and Related Fields, I think the number 213 is higher than the number of manuscripts that will be submitted in the second half of 2017. Nevertheless, I think the number of manuscripts that are being submitted for the journal will support publication of about the same number of papers that were published in 2015 and 2016. Unfortunately, I do not think the quality of the manuscripts submitted is improving. Also, the vast percentage of submitted manuscripts comes from authors who are submitting to the journal for the first time. So, I do not think improvements in the quality of the community around education in fields within the scope of interest to the IEEE are being observed.

Workshops on Publishing in the IEEE Transactions on Education at EDUCON and TALE

When I am able to offer a workshop at either EDUCON or TALE, I think the workshop has been worthwhile. Attendance at the workshop offered at the 2017 EDUCON conference was two to three times what it has been in the past. Also, there were more participants than the room allocated for the workshop could accommodate. The general chair, who recognized the situation, moved the second half

of the workshop to a larger room. Also, the general chair invited me to offer the workshop and paid for registration and lodging. I think these are all indicators about the value and effectiveness of the workshop. I hope the trend of inviting the Editor to offer the workshop at the conference and paying for the registration and lodging will continue.

Change of Position

Effective 1 September 2017, I will become a faculty member in the Department of Engineering at The Ohio State University. I will be working to support development of the faculty members in the relatively new department. I will be leaving Texas A&M University after 18 years. I do not anticipate any immediate influences on my role as the Editor-in-Chief of the IEEE Transactions on Education.

News

On 17 May 2017, my left hip was completely replaced. My recovery is following the timeline expected for such surgery and I am doing well, almost six weeks after the surgery. During my recovery I have handled tasks less rapidly than normal and manuscripts are being processed at a rate slower than normal. However, I am almost back to full strength and expect to resume processing manuscripts at the usual rate.