

Update: IEEE Journal on Selected Areas in Information Theory (JSAIT)

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ITSoc BoG Meeting
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Executive Summary

- Phase II approved by ITSoc BoG in Oct. 2018 and by IEEE in Nov. 2018
 - IEEE TAB vote (JSTIT to JSAIT) later this week
- EiC approved by BoG in Dec. 2018 (*thanks*)
- Steering Committee (SC) approved list of candidate senior editors in Feb. 2019
 - Currently soliciting their agreement to serve
- Working document on list of first year's topics and subsequent topics approved by SC
 - To be finalized with senior editors
- Target 1st issue call for papers March/April
- First issue to appear in Q1 2020

JSAIT Leadership Structure



- Steering Committee (SC) appointed by the BOG (5Y term)
 - 4 members in steady state (5 initially)
- Steering Committee Appoints EIC (3Y nonrenewable term)
 - subject to BOG Approval
- EIC appoints Senior Editors
 - 5Y term
 - Subject to SC approval
 - Not subject to BOG approval
- EIC Approves SI proposals including a Guest Editorial Team
- One or two Senior Editors serve as “Mentor” to each SI team, with further oversight by EIC

EIC and Editor Selection Status

■ EIC Selection (3Y term)

- Call for nominations sent to all ITSoc Members on Oct. 15. Closed Nov. 15.
- Steering Committee selected EIC (me) in late November.
- EIC accepted mid-Dec (*I am deeply honored to have been selected*)

■ Senior Editor selection

- 12-14 SEs anticipated (5Y terms)
- Selection underway
- Plan to have all SEs in place by late Feb/early March

■ Steering Committee (5Y term, Current terms staggered, 4 members in 2021)

1. Chair: **Jeffrey Andrews, UT Austin** (EIC of T. Wireless 2014-16, BOG Member 2013-19). *Term: '18-'23.*
2. **Rob Calderbank, Duke** (EIC of Trans IT 1995-98, Hamming Medal, Shannon Award, NAE). *Term: '18-'22.*
3. **Muriel Medard, MIT** (EIC of JSAC 2014-2017, ITSoc Pres. 2012, Founding SC of IEEE TNSE 2013-17). *Term: '18-'20.*
4. **Vince Poor, Princeton** (EIC of Trans. IT 2004-7, ITSoc President 1990, Bell Medal, NAE, NAS). *Term: '18-'21.*
5. **Rudi Urbanke, EPFL** (Hamming Medal, Kobayashi Award, ITSoc President 2017). *Term: '18-'20*

Working List of Y1-Y3 Topics

- Machine Learning
- Blockchain Networks and Cryptocurrency
- Quantum Information Science and Processing
- Statistical Inference and Estimation
- Privacy and Utility
- Biological Information Science
- Neuroscience and Brain-Machine Interfaces
- Cryptography and Security
- Data Storage and Caching
- Network Information Science
- Theoretical Computer Science and Information Theory
- Core IT topics

More detailed description of topics and potential guest editors have also been developed

Launch Plans

- First JSAIT Call for Papers in March/April
 - Papers due in Q3 2020, first issue in Q1 2020
 - Will plan first 3-4 issues in parallel
 - Subsequent calls every few months
- Initially 4 issues per year, then by year 3 reaching ~6 Special Issues (SIs) per year
 - 12-25 papers per issue depending on # of submissions
 - 10-15 pages/paper
 - 30 page limit for submissions (1 colm, double space)
 - 10 free pages, \$220/page for pages 11 and up.
 - Comparable to JSTSP
 - Estimating 1000 pages/year at steady state (year 3 or 4 and thereafter)
 - Could be in 1200-1400 range

JSAIT Financial Projections (from IEEE)

JSAIT 100% owned by ITSOC

Financials	2019	2020	2021	2022
<i>Variable Fulfillment Expenses</i>				
Digital Print/Manufacturing /Postage (quote for producing 30 copies)		\$ 968	\$ 1,056	\$ 1,698
<i>Total Fulfillment Expenses</i>		\$ 968	\$ 1,056	\$ 1,698
<i>Other Variable Expenses</i>				
Voluntary Page Charges		\$ 75	\$ 100	\$ 125
Overlength Page Charges		\$ 1,800	\$ 2,400	\$ 3,000
Bad debt for page charge collection		\$ 2,651	\$ 3,535	\$ 4,419
<i>Total Other Variable Expenses</i>		\$ 4,526	\$ 6,035	\$ 7,544
TOTAL EXPENSE	\$ 5,750	\$ 55,765	\$ 66,433	\$ 78,359
NET SURPLUS/(DEFICIT)	(\$5,750)	(\$1,221)	\$10,365	\$ 16,969
Society Reserves Effect***	(\$5,750)	(\$6,971)	\$3,394	\$ 20,363
*** Cumulative effect on reserve				

Into the black very quickly, according to IEEE

**Your input on the new
journal is most welcome**

Appendices (Past BOG documents):

- 1. JSAIT Scope, Need, Overlap**
- 2. EiC, SC, and Editor Processes and Procedures**
- 3. Detailed Financials**

Scope

- The **IEEE Journal on Special Areas in Information Theory (JSAIT)** publishes high quality technical papers on all aspects of Information Theory. It is a multi-disciplinary journal of special issues (SIs) focusing on the intersections of information theory with fields such as machine learning, statistics, genomics, neuroscience, theoretical computer science, and physics. Many fields lean heavily on the fundamentals of information theory, including concepts such as information entropy, compression, coding and decoding, mutual information, divergence, capacity, and rate distortion theory. There will also be special issues for hot topics firmly within information theory, such as new types of codes, short-packet communication, advances in multi-terminal information theory, quantum information theory, information theoretic security, and other emerging topics.

Need

- ITSoc needs a journal to incubate new topics and connect to emerging applications of information theory
 - The size (8000 pages/year) and particular culture (e.g. long mathematically dense papers) of the current Transactions is an impediment to growth
 - Other societies' experience shows that a dedicated special topics journal can be very successful at this
- A readership survey was conducted with favorable results (April 2018, see posted survey for details)
 - 340 Responses (23%)
 - 76.5% "likely to read this publication" vs. 9.4% "not likely"
 - 48.6% likely to submit
 - 85.5% said "subject matter still important in 10 years"
 - 83.4% said "subject matter is growing" and "will be useful to them professionally"

Overlap with Existing Periodicals

- Journal is distinct from existing IEEE and non-IEEE journals and would be only Information Theory Society journal other than the venerable Transactions
- Proposal details 9 IEEE and 2 non-IEEE journals with varying levels of partial overlap
 - Open to discussion/questions on any of these
 - We carefully studied the launch and financials of JSTSP, good model for JSTIT
- Like many other societies, ITSoc needs a nimble SI journal to incubate new research directions and attract papers from outside its existing research community

EIC Selection & Appointment Process

- The EIC will serve a single 3 year term (non-renewable). The EIC be selected (following IEEE best practices) as follows:
 1. Open call for Nominations widely distributed to all Society members and to other relevant mailing lists
 2. Steering Committee will additionally solicit high quality nominations and may make their own nominations
 3. Steering Committee selects first choice EIC, privately confirms their availability. (If unavailable, proceeds to second choice, and so on). Once selected, this person is presented to the BOG for possible discussion, and confirmation.
 4. The ITSoc BOG votes to confirm the appointment of the EIC selected by the Steering Committee (unless of course they strongly disagree with the selection)

Steering Committee Selection

- Steering Committee members will be appointed by the Society's VP of Publications (currently the Senior Past President) after consultation with existing Steering Committee members.
- SC members will serve a non-renewable 5 year term
 - However for the next several years the retirements of the founding SC members shall be staggered
 - This way there will be about one retirement and one new appointment per year extending into the future.
- The Chair of the SC shall be appointed by the SC members
 - Should have served at least one year on the SC before being appointed Chair.
 - In the event that the SC members are unable to converge on a Chair selection, the Chair will be selected by the VP of Publications (currently the Senior Past President).

IEEE Journal on Selected Topics in Information Theory (JSTIT)

No print, ONLY Digital Print for ASPP

Description	2019	2020	2021	2022
Estimated # of published articles per year (12 pages per article)		50	65	80
# Pages per Year		600	800	1,000
# Issues per Year		4	4	6
# Members Online Subscriber (Bundled)		2,635	2,678	2,699
# Student Members Online Subscriber (Bundled)		465	473	476
# Non Member Online Subscribers		2	2	3
# ASPP Subscribers (Digital Print copies)		30	30	30
# General Interest Online Subscribers		170	213	255
# General Interest Student Online Subscribers		30	38	45
Prices	2019	2020	2021	2022
Member Online Rate (BUNDLED)		\$ -	\$ -	\$ -
Student Online Rate (BUNDLED)		\$ -	\$ -	\$ -
Non Member Online Sub Rate		\$ 620	\$ 650	\$ 675
General Interest Online Sub rate		\$ 38	\$ 40	\$ 42
Student General Interest Online Sub rate		\$ 19	\$ 20	\$ 21
Voluntary Page Charge Rate		\$ 110	\$ 110	\$ 110
% of Paid Voluntary Pages		0.5%	0.5%	0.5%
Overlength Page Charge Rate		\$ 200	\$ 200	\$ 200
% of Paid Overlength Pages		12%	12%	12%

PERIODICAL FINANCIAL STATEMENT

Financials	2019	2020	2021	2022
REVENUE				
Member, Student and General Interest Subscription Revenue		\$ 7,030	\$ 9,280	\$ 11,655
Non Member Revenue		\$ 1,240	\$ 1,300	\$ 2,025
Non Member sub share of Corporate Infrastructure		\$ (360)	\$ (377)	\$ (587)
Voluntary Page Charge		\$ 330	\$ 440	\$ 550
Overlength Page Charge		\$ 14,400	\$ 19,200	\$ 24,000
Periodicals Package Program (includes the following base amounts per year: \$27.9K, \$18.6K, and \$9.3K)		\$ 31,904	\$ 46,955	\$ 57,685
TOTAL REVENUE	\$ -	\$ 54,544	\$ 76,798	\$ 95,328
EXPENSE				
<i>Fixed Expenses</i>				
Promotion		\$ -	\$ -	\$ -
EIC and editor travel (Panel of Editors, AdCom)		\$ 5,000	\$ 5,000	\$ 5,000
Xplore		\$ 5,879	\$ 5,879	\$ 5,879
ScholarOne Manuscripts	\$ 5,750	\$ 7,030	\$ 7,967	\$ 8,653
Editorial (moderate-edited level)		\$ 16,800	\$ 23,080	\$ 30,240
Information Conversion (XML)		\$ 1,800	\$ 2,400	\$ 3,024
Editorial Assistant/Office (peer review support)		\$ 10,000	\$ 10,000	\$ 10,000
Indexing		\$ 120	\$ 160	\$ 202
Publication Administration		\$ 3,642	\$ 4,856	\$ 6,119
Total Fixed Expenses	\$ 5,750	\$ 50,271	\$ 59,342	\$ 69,117

- Note the key impact of page charges
- Budget for Admin is very tentative and about ¼ time (10 hours a week)