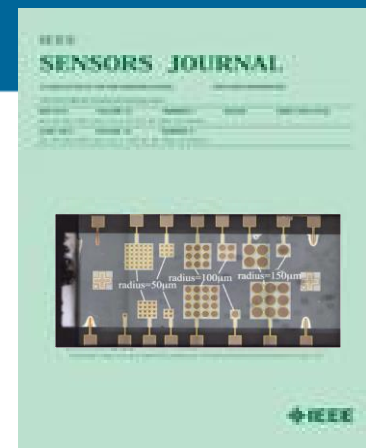# IEEE Sensors Journal
Editor-in-Chief Report

Krikor B Ozanyan

**IEEE Sensors Council AdCom Meeting
1 November 2014**

Outline

- **5 years' review of IEEE SJ**
- **Impact factor update**
- **Analyses of Editorial activity – YTD**

IEEE Sensors J Editorial Board meeting –

Monday 3 Nov 15:00 Room 9

5 years' review of IEEE Sensors J - February 2014

Comments and recommendations by PRAC

"...

- This journal appears to be well-run in terms of intellectual content, timeliness and management. The volunteers are dedicated to producing a very top notch publication.
- Consider recruiting editors from industry in order to broaden participation beyond academia.
- Very good broad geographical distribution of AEs.
- Immediate rejects: at least two other people examine and agree, pass the reasons for rejection to the author.
- Consider splitting into SENSORS A, SENSORS B, … Journal to publish more without sacrifice in quality.

..."

Next review - in 2019

2013 Impact factor – 25% up

IF is always citations/papers, but depends on:
- **the database used**
- **definition of a citation**
- **citation habits**
- **?...**

THOMSON REUTERS

2 years IF = 1.85
5 years IF = 1.98

SCImago Journal & Country Rank   SCIMAGO LAB   Powered by Scopus

2 years IF = 2.58
3 years IF = 2.57

Universiteit Leiden

2 years IF (RIP) = 1.98
source-norm (SNIP) = 1.91

IEEE
Advancing Technology for Humanity

IEEE Sensors J 2013 IF: Th-R

THOMSON REUTERS

Th-R Journal categories:
- **Engineering, electrical & electronic** **71/247**
- **Instruments & Instrumentation** **13/57**
- **Physics, applied** **48/136**

Journal 'relatedness'	SJ to j	j to SJ	
SENSOR MATER	9.8	25.7	15.9
SENSOR REV	10.33	16.36	6.03
J MICRO-NANOLITH MEM	2.52	8.32	5.8
MICROSYST TECHNOL	3.98	9.18	5.2
FLOW MEAS INSTRUM	3.48	8.29	4.81
IEEE INSTRU MEAS MAG	14.7	19.43	4.73
ANALOG INTEGR CIRC S	1.54	6.12	4.58
OPT FIBER TECHNOL	6.63	10.9	4.27
INT J DISTRIB SENS N	0.56	4.49	3.93
SMART STRUCT SYST	3.59	7.37	3.78
CHIN OPT LETT	1.16	4.62	3.46
SENSORS-BASEL	7.27	10.66	3.39
SENSOR LETT	4.54	7.8	3.26

Journal 'relatedness'	SJ to j	j to SJ	
IEEE T ANTENN PROPAG	3.77	0.61	-3.16
IEEE T SYST MAN CY-S	4.28	0.95	-3.33
IEEE T CIRCUITS-I	7.15	3.16	-3.99
IEEE T VEH TECHNOL	4.82	0.81	-4.01
IEEE COMMUN SURV TUT	4.69	0.49	-4.2
IEEE PHOTONIC TECH L	10.72	6.19	-4.53
IEEE J SEL TOP QUANT	5.38	0.8	-4.58
IEEE J SEL AREA COMM	5.2	0.53	-4.67
IEEE T NANOTECHNOL	6.22	1.45	-4.77
IEEE T POWER DELIVER	5.85	0.72	-5.13
IEEE T WIREL COMMUN	6.3	0.6	-5.7
IEEE T CONSUM ELECTR	9.64	3.53	-6.11
IEEE T ELECTRON DEV	9.2	2.33	-6.87
IEEE T MICROW THEORY	10.39	3.34	-7.05
IEEE T ULTRASON FERR	11.67	3.48	-8.19
IEEE T AERO ELEC SYS	12.03	3.8	-8.23
IEEE T BIO-MED ENG	12.13	2.1	-10.03
IEEE T PATTERN ANAL	10.57	0.32	-10.25
IEEE T SIGNAL PROCES	11.91	0.47	-11.44
IEEE T INSTRUM MEAS	27.99	11.32	-16.67
IEEE J QUANTUM ELECT	19.49	1.35	-18.14
IEEE J SOLID-ST CIRC	27	2.44	-24.56
IEEE T ROBOT	33.98	2.51	-31.47
P IEEE	38.47	0.63	-37.84

**Th-R 'Journal relatedness' allows to capture citations asymmetry between journals
Most of the IEEE Trans cite us less than we cite them!**

IEEE
Advancing Technology for Humanity

5

IEEE Sensors J 2013 IF: SCImago

IEEE Sensors Journal

SJR SCImago Journal & Country Rank • SCIMAGO LAB • Powered by Scopus

Category	Quartile (Q1 means highest values and Q4 lowest values)														
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electrical and Electronic Engineering				Q2	Q2	Q1	Q2	Q2	Q1	Q2	Q1	Q1	Q1	Q1	Q1
Instrumentation				Q2	Q1	Q1	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q1	Q1

IF
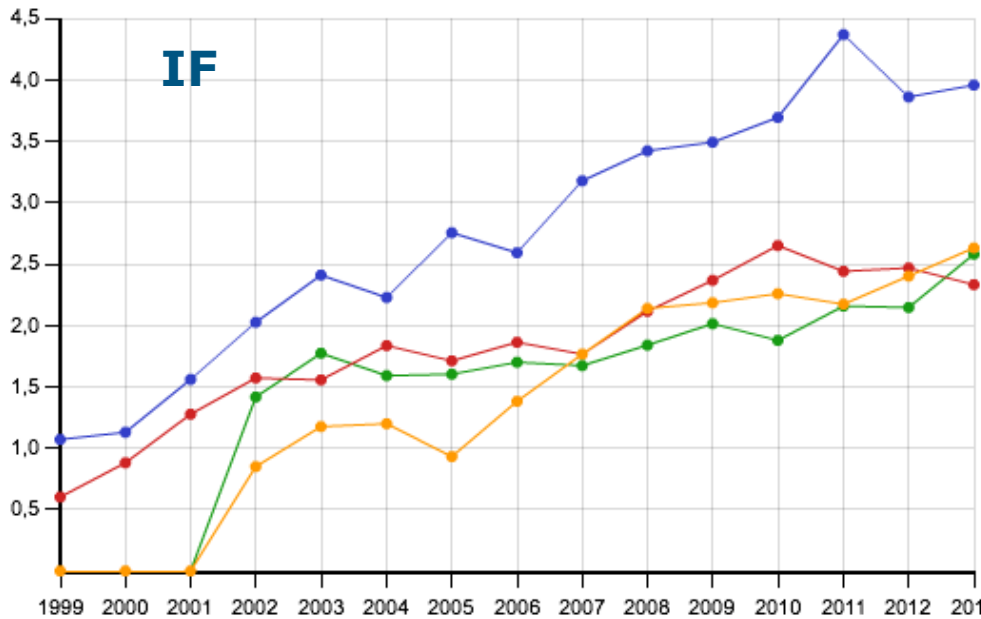
Citable docs in year
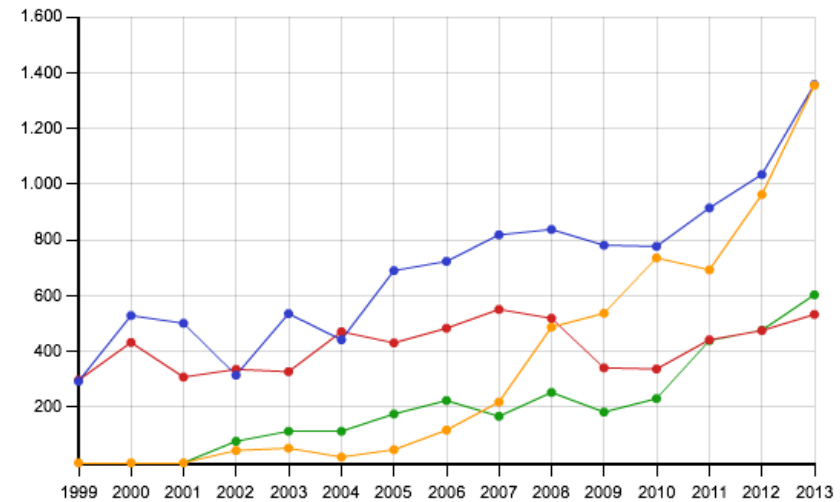
Legend:
- IEEE Sensors Journal
- Sensors and Actuators, B: Chemical
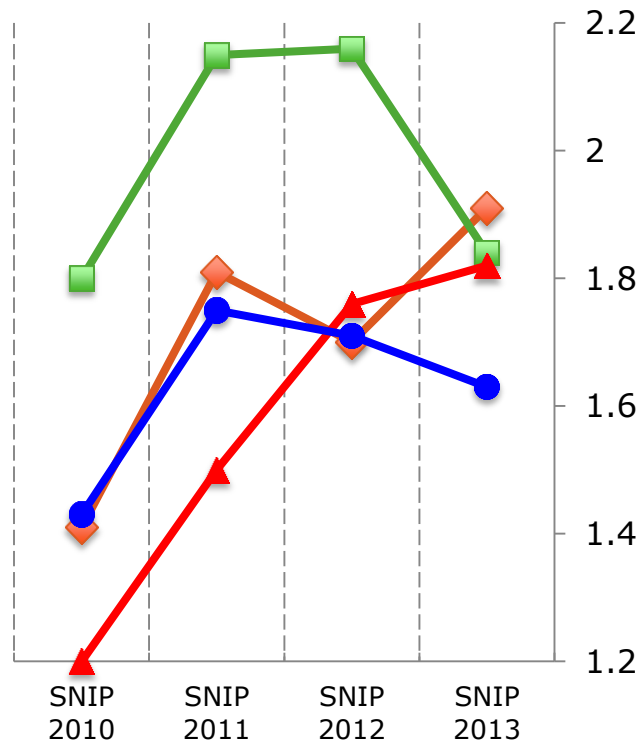- Sensors and Actuators, A: Physical
- Sensors

(c) SCImago Research Group

IEEE Sensors J 2013 IF: refinements

Source-**N**ormalised **I**mpact per **P**aper (**SNIP**)
by the Centre for Science and Technology Studies – Leiden University

Universiteit Leiden

Measures the average citation impact of a paper in a given journal by **correcting for the differences in citation practices between scientific fields.**

Notable difference between the Raw Impact Factor (RIP) and SNIP :
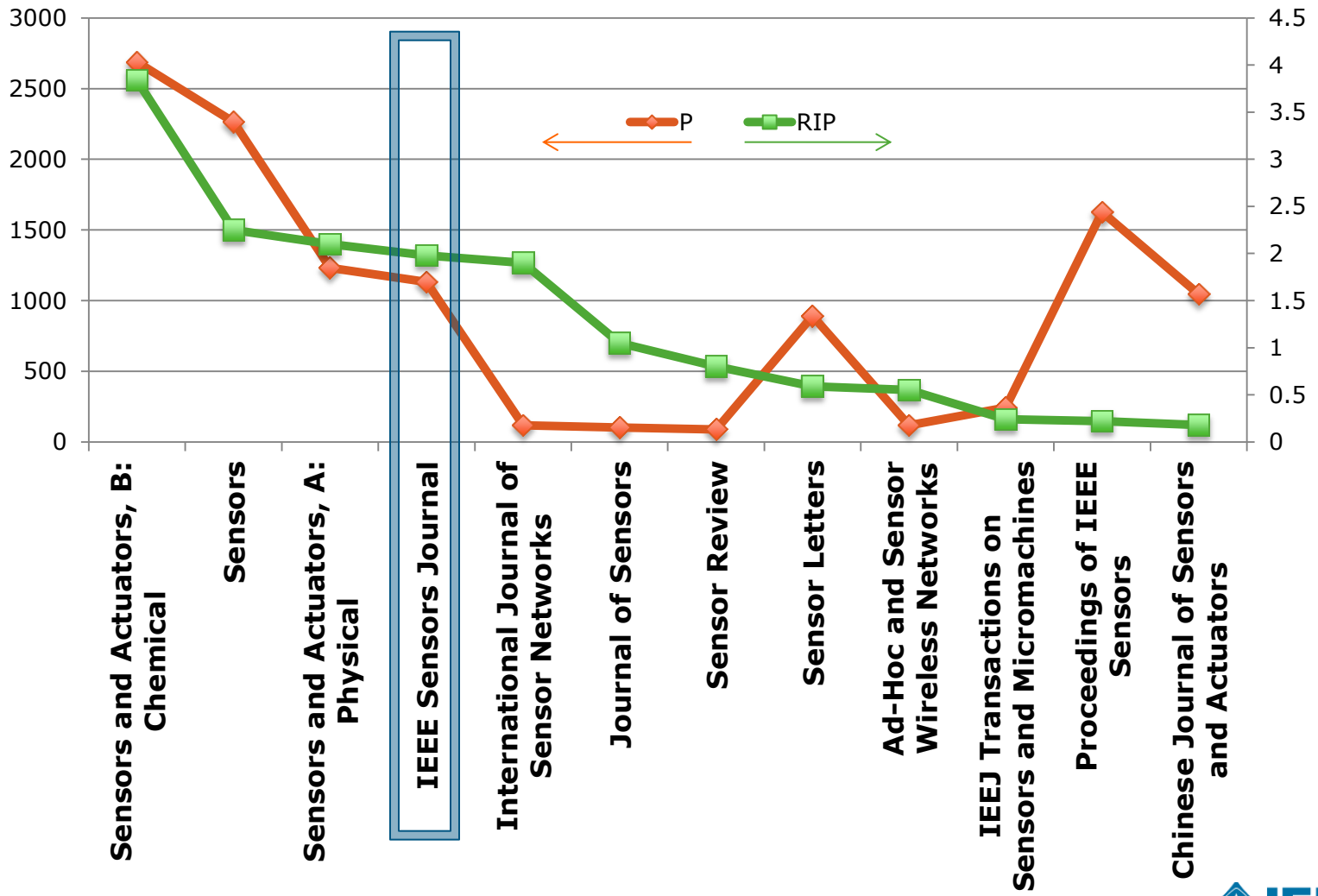2013: IEEE SJ RIP = 3.84
IEEE SJ SNIP = 1.91

2013 SNIP ranking in area "sensor", **IEEE Sensors Journal on top!**

- IEEE Sensors Journal
- Sensors and Actuators, A: Physical
- Sensors
- Sensors and Actuators, B: Chemical

IF/RIP and number of papers

Publication volume is necessary, but not enough!

10/21/2014

SJ bibliometrics: is IF inflating?

IF ranking among IEEE

2013 IF change from 2012 [%]

Publication power (papers * 'quality'= citations)

- position is not changed, suggesting that what matters is the absolute number of citations!

Advancing Technology for Humanity

IF conclusions – where are we?

- **The IF rise is genuine and we have moved up 'above inflation'.**

- **The IF rise is sustainable, as it correlates with our increased volume and short decision time.**

- **Still about 50 IEEE Js with higher IF; citations asymmetry with them is not in our favour.**

- **Looking for ways to understand better how interdisciplinarity affects our IF position.**

Analyses of Editorial activity

- **Submission numbers and distribution**
- **Editorial flow schedule**
- **Editorial load and AE/TE performance**
- **Assess the relative value of Special Issue vs Regular Papers**
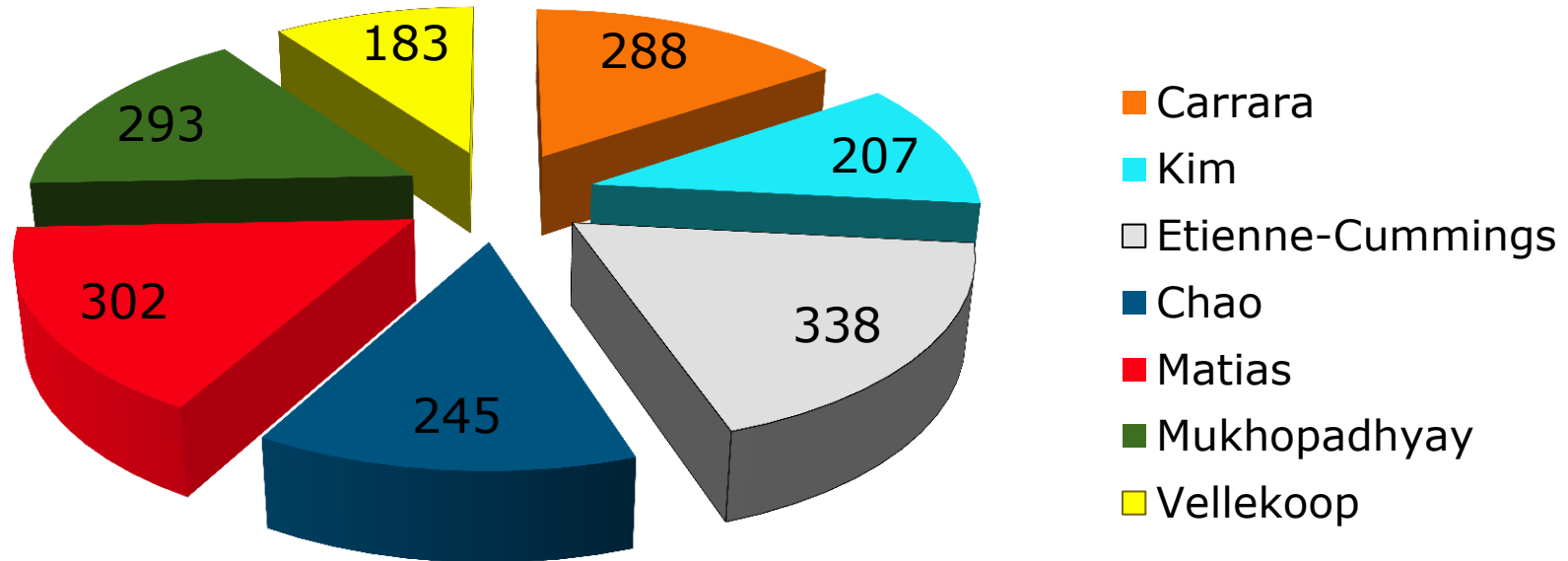
Topical teams –
Topical Editors, core and pool AEs
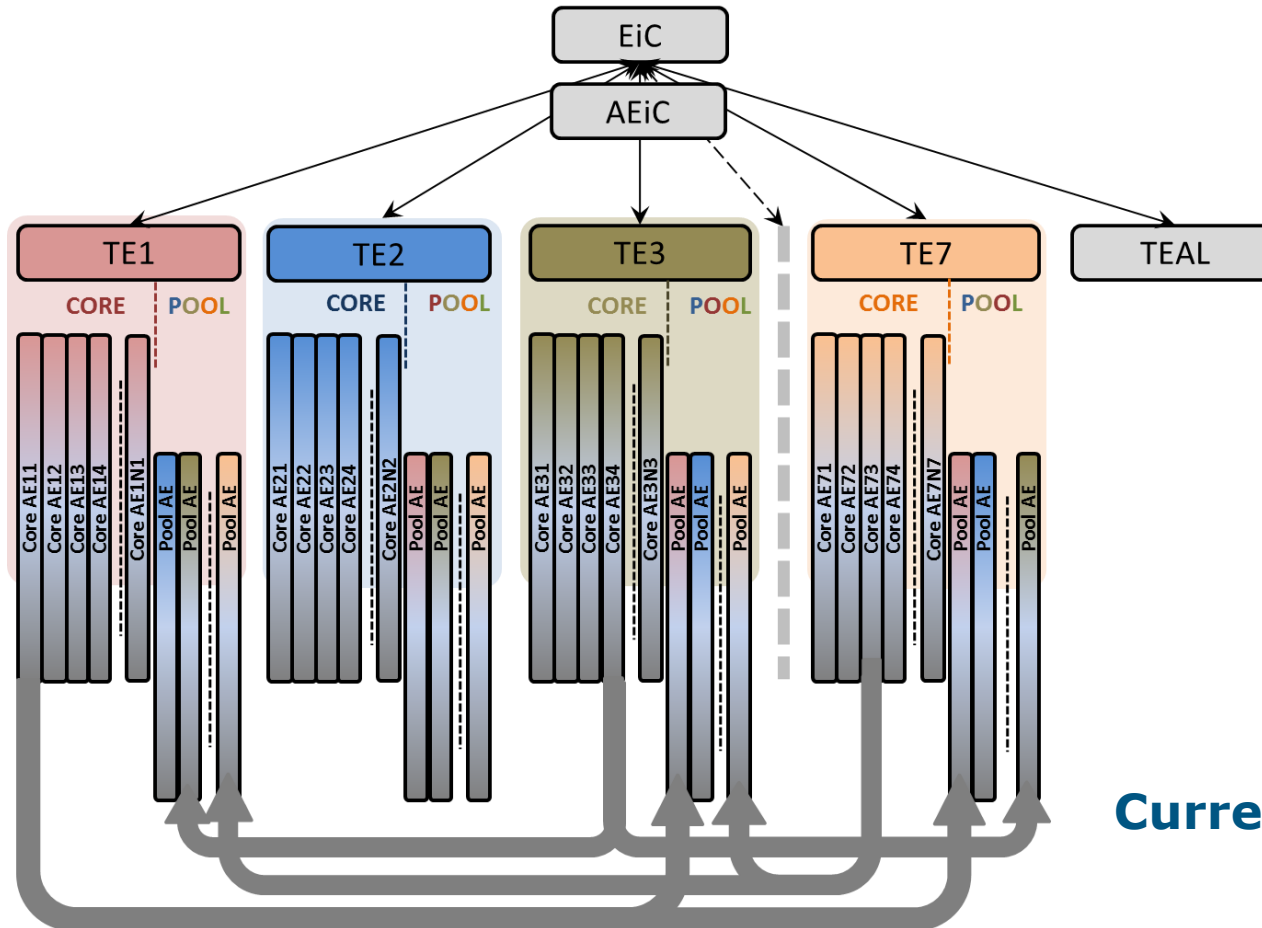
Current EB structure

Editorial performance - yearly manuscript flux

- **Total number of submitted manuscripts: 2457**
- **Of these: 1946 were original (first time) submissions**
                        508 were revisions
- **Acceptance rate: 22%**
- **Acceptance rate with revisions ignored: 28%**
- **Sub-to-first decision time: 58 days**

- **With 52 AEs (47 M/S.year^{-1}.AE^{-1}) the editorial load is:**
  - **4.2 new M/S are received by an average AE each month**
  - **8 M/S are with an average AE at any time**

Editorial load by Topical Area

The pie chart shows the editorial load by topical area with the following values:
- Carrara: 288
- Kim: 207
- Etienne-Cummings: 338
- Chao: 245
- Matias: 302
- Mukhopadhyay: 293
- Vellekoop: 183

- **The spread of the load is not strictly even, but still in balance**
- **Deviations can be compensated by topical team size**

Distribution by manuscript type

regular papers 76%

special issues 17%

conf expanded 1%

tutorials 0%

reviews 1%

letters 5%
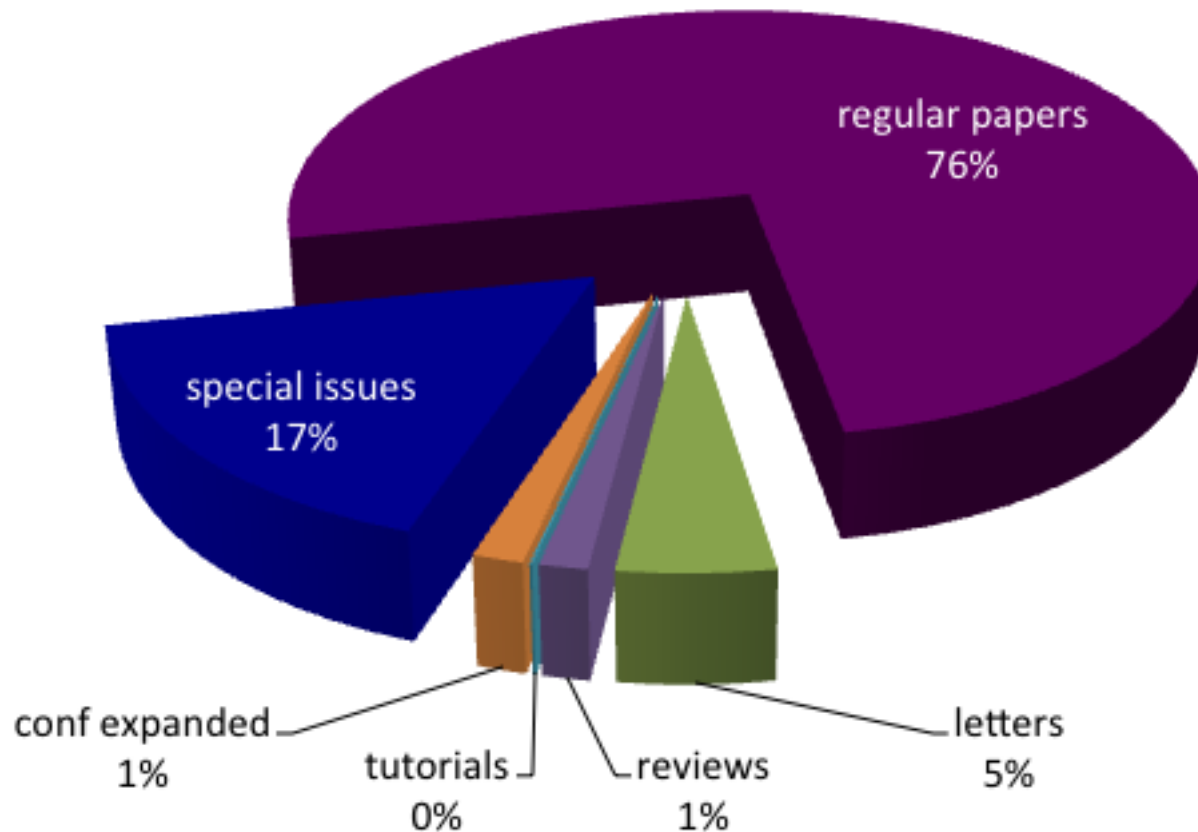
roughly 3/4 regular papers, 1/5 SI papers

Topical teams performance– Topical Editors, Associate Editors

Topical Editors ranking:
by shortest assignment time

	days
Mukhopadhyay	0.16
Chao	1.08
Matias	1.51
Kim	2.44
Carrara	3.93
Etienne-Cummings	16.43
Vellekoop	21.85
Journal average	**5.61**

Associate Editors ranking:
by Figure of Merit: (number of papers)/(time to decision)

papers	days		FOM
96	29.16	Yuce	3.29
86	29.70	Mignani	2.90
58	29.79	Pandharipande	1.95

Impact of Special Issues on IF and usage

Information gathering exercise, implemented by Paul Chao and students :

- Downloads* and citations for all SI papers in 2011, 2012 and 2013
- Downloads and citations for randomly taken regular papers
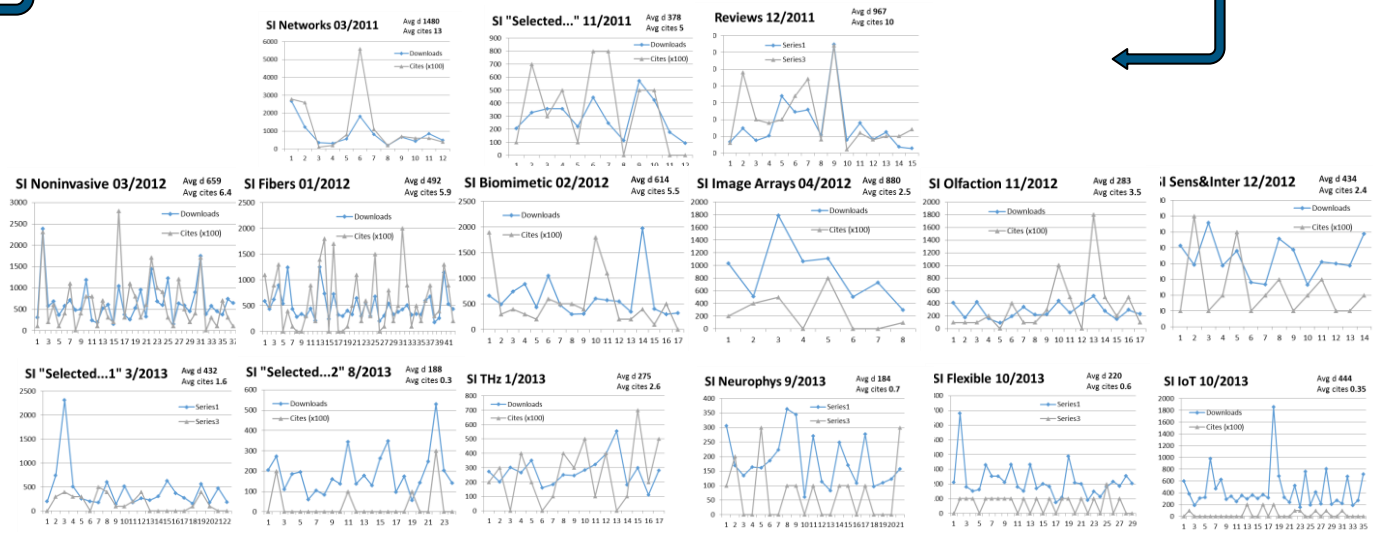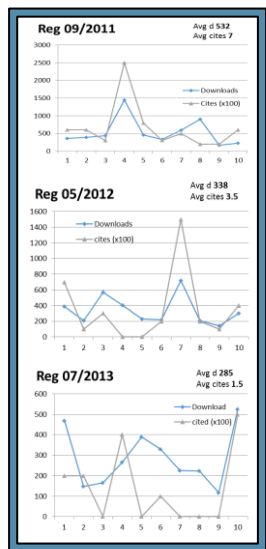
Consistency between downloads and citations improves for more distant papers

*full papers (PDF) views, not necessarily actual downloads

Impact of Special Issues on IF and usage

Data:	SI 2011	Reg2011	SI 2012	Reg2012	SI 2013	Reg2013
Downloads	933	532	544	338	300	285
Citations	9.3	6.6	5.1	3.5	0.9	1.4

Clear benefit of SIs in terms of usage and citation numbers, increasing for earlier years (but probably saturates at half-life)

If we "pick-and-choose" Special Issues,
what could have been* our 2013 IF=1.85 ?
- **Without any SIs**   **-IF=1.73**
- **Without the 'Selected...2010'**   **-IF=1.88**
- **Without the better-performing SIs**   **-IF=1.42**
- **Without the the worse-performing SIs**   **-IF=1.86**

*substantial dependence on citation models
to get year distribution of total cites to date

IEEE
Advancing Technology
for Humanity