Edward J. Davison

List of Publications

Notation:

(J) Journal paper with referee review system
(C) Conference paper with referee review system
(Corr) Correspondence paper with referee review system
(CA) Conference paper accepted by abstract only
(CH) Chapter contributed in book
(O) Other

1965


1966


1967


This paper has been identified as being one of the most cited items in its field according to data taken from Science Citation Index (SCI) and has appeared in the Citation Classics section of Current Contents (CC): Engineering, Technology and Applied Sciences, April 25, 1983, vol 14, no 17, p 20.


1968


27. (C) Davison, E.J., Goldberg, R.W., “Optimum variable measurement in multivariable control systems”, *IFAC Symposium on Multivariable Systems*, Dusseldorf, Germany, October 1968, Section 9, pp 1-16.


1969


1970


1971


1972


1973


²This paper was chosen for honourable mention amongst the papers published in the *IEEE Trans on Automatic Control*, vol AC-18 (1973) and vol AC-19 (1974).


1974


1975


125. (CA) Davison, E.J., “Robust decentralized control of a general servomechanism problem”, *Conference on Directions in Decentralized Control, Many-Person Optimization and Large-Scale Systems*, Cambridge, MA, September 1-3, 1975, (invited paper).


1976


147. (C) Davison, E.J., “Connectability and structural controllability of composite systems”, *IFAC Symposium on Large Scale Systems*, Udine, Italy, June 1976, pp 241-245.


1977


159. (C) Tripathi, N.K., Davison, E.J., “Large scale interconnected system modelling in state space form”, *National Science Conference*, PSG College of Technology, Coimbatore 641004, India, June 1977.


161. (C) Davison, E.J., “Recent results on decentralized control of large scale multivariable systems”, *IFAC Multivariable Technological Systems Symposium*, New Brunswick, July 1977, pp 1-10, (invited plenary session).


1978


172. (C) Gesing, W., Davison, E.J., “A robust conjugate-gradient algorithm for solving general constrained optimization problems with application to computer-aided design”, 7th IFAC World Congress on Automatic Control, Finland, June 1978, pp 1049-1056, (invited paper).


1979


186. (C) Tripathi, N.K., Davison, E.J., “The automatic generation control of a multiarea interconnected system using reduced order models”, IFAC Symposium on Computer Applications in Large Scale Power Systems, New Delhi, India, August 16-18, 1979, pp 117-126.


1980


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This paper was chosen to be the outstanding best paper award amongst the papers published in the IEEE Trans on Automatic Control, vol AC-24 (1979) and vol AC-25 (1980).
193. (CA) Ozguner, U., Davison, E.J., “The minimal decentralized realization of a linear time-
    invariant system”, *IEEE 1980 International Conference on Circuits and Computers for Large

194. (C) Davison, E.J., Ferguson, I., “The design of controllers for the multivariable robust
    servomechanism problem using parameter optimization methods”, *19th IEEE Control & De-

1981

195. (J) Wang, S.H., Davison, E.J., “Penetrating transmission zeros in the design of robust
    784-787.

196. (J) Davison, E.J., Ferguson, I., “The design of controllers for the multivariable robust
    servomechanism problems using parameter optimization methods”, *IEEE Trans on Automatic

197. (O) Davison, E.J., “Status of computer-aided control system design for feedback design –
    Nonlinear optimization methods”, *GE-RPI-NSF Workshop on Control Design*, Schenectady,

198. (O) Davison, E.J., “Decentralized control with applications to large scale systems”, Tutorial
    Workshop, *Joint Automatic Control Conference*, University of Virginia, Charlottesville, June
    1981, (invited paper).

    *2nd Engineering Foundation Conference on Research Directions in Computer Control of Urban

200. (C) Davison, E.J., Ozguner, U., “Characterizations of decentralized fixed modes for intercon-
    nected systems”, *8th IFAC Triannual World Congress on Automatic Control*, Kyoto, Japan,

201. (C) Davison, E.J., “Reliability of the robust servomechanism controller for decentralized
    systems”, *8th IFAC Triannual World Congress on Automatic Control*, Kyoto, Japan, vol XII,


203. (C) West-Vukovich, G., Davison, E.J., Hughes, P., “Decentralized control of large flexible
    space structures”, *1981 IEEE Control & Decision Conference*, San Diego, December 1981,
    pp 949-955.

204. (C) Ozguner, U., Davison, E.J., “On the stability and eigenvalue location of a class of
    composite systems”, *1981 IEEE Control & Decision Conference*, San Diego, December 1981,
    pp 301-302.

205. (C) Scherzinger, B., Davison, E.J., “Generalized error coefficients for the multivariable
    servomechanism problem”, *1981 IEEE Control & Decision Conference*, San Diego, December
1982


1983


1984


1985


1986


1987

255. (O) “Challenges to control: A collective view”, *IEEE Trans on Automatic Control*, vol AC-32, no 4, April 1987, pp 275-285. This paper which had no author, was a summary of an IEEE/NSF Workshop held at the University of Santa Clara, September 1986. (E.J. Davison was a member of the steering committee for this workshop.)


263. (C) Vaz, A., Davison, E.J., “Simplified design of controllers to solve the robust decentralized servomechanism problem for large systems”, *10th IFAC World Congress*, Munich, vol. 8, July 1987, pp 125-130.


265. (CA) Davison, E.J., “Decentralized control of large scale systems”, IEEE Control Systems Society Workshop on Decentralized and Distributed Control, The Ohio State University, Columbus, OH, September 14-15, 1987 (plenary paper).


1988


282. (C) Qiu Li, Davison, E.J., “Computation of stability robustness of large state space models with real perturbations”, 1988 IEEE Control & Decision Conference, December 1988, Austin, TX, pp 1380-1385, (invited paper).


1989


4Chosen for Honorary Mention Best Paper Student Award, 27th IEEE Control & Decision Conference, December 1988.

287. (J) Vaz, A.F., Davison, E.J., “Time scale based modular synthesis of controllers to solve the robust decentralized servomechanism problem”, *Information & Decision Technologies* (was *J. Large Scale Systems*), vol 16, 1989, pp 103-120.


1990

5 Chosen for Honorary Mention Best Paper Student Award, 28th *IEEE Control & Decision Conference*, December 1989.

6 Chosen for Honorary Mention Best paper Student Award, 28th *IEEE Control & Decision Conference*, December 1989.


307. (C) Qiu Li, Davison, E.J., “Performance limitations of non-minimum phase systems”, 11th IFAC World Congress, August 13-17, 1990, Tallinn, USSR, vol 2, pp 322-327.


1991


317. (C) Qiu Li, Davison, E.J., “Point-wise gap metric and robust stabilization”, *MNTS*, June 1991, Kyoto, Japan, (invited paper).


1992


1993


1994


1995


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7This paper was chosen for honorable mention in the SIAM Linear Algebra Prize Competition, November 1, 1997.


362. (O) Blondel, V., Gevers, M., Lindquist, A., “Survey on the state of systems and control”, *European J of Control*, vol 1, no 1, 1995, pp 5-23 (E.J. Davison was one of the major contributors to this article).

1996


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1998


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2000


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2002


2003


427. (C) Khatir M., Davison, E.J., “Cooperative control for large systems”, *Block Island Workshop on Cooperative Control*, Block Island, RI, June 10-11, 2003


2004


2005


2006


2007


2008


2010


2011

487. (C) Roszak B., Davison E.J., "An optimal servomechanism controller for positive systems with application to an experimental industrial system" *18th IFAC World Congress 2011*, Milan August 2011, pp 7529 - 7534.

488. (C) Davison D.E., Davison E.J., "Optimal Servomechanism Control of Plants with Fewer Inputs than Outputs" *18th IFAC World Congress 2011*, Milan, August 2011, pp 11332 - 11337.


2012


2013

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