Curriculum Vitae

Dr. Dariush Divsalar
Jet Propulsion Laboratory
California Institute of Technology
M/S 238-420
4800 Oak Grove Drive
Pasadena, CA 91109

Phone: (818) 393-5138
Fax: 818-354-6825
e-mail: Dariush.Divsalar@jpl.nasa.gov
U.S. Citizen
Fellow of Jet Propulsion Laboratory
A JPL Fellow is one who has made extraordinary technical and institutional contributions to JPL over an extended period of time. Fellows are sought out for advice on strategic technical decisions and for establishing the course for JPL's future.
NASA/JPL Senior Research Scientists, website:

http://scienceandtechnology.jpl.nasa.gov/people/d_divsalar/

Google scholar citations:

http://scholar.google.com/citations?user=CCJSZ5sAAAAJ&hl=en&oi=ao

UCLA Adjunct professor

http://www.ee.ucla.edu/adjunct-faculty/

Education:

1977-78	University of California, Los Angeles (UCLA), Ph. D. in Electrical Engineering, Dec. 1978.

Major: Communication Systems, Department of Electrical Engineering.
Minor: Computer System Modeling and Analysis, Department of Computer Science.
Minor: Applied Mathematics, Department of Mathematics.

1975-77	University of California, Los Angeles (UCLA), Engineer Degree, June 1977.

1973-75	University of California, Los Angeles (UCLA) M.S. in Electrical Engineering, March 1975.

Work Experience:

1978-present. Jet Propulsion Laboratory, California Institute of Technology,
Pasadena, CA.

      2015 Fellow
      2000 Principal Scientist
      1999 Senior Research Scientist
      1997 Principal of Engineering Staff.
      1989 Senior Member of Technical Staff.
      1982 Member of Technical Staff.
      1978 Senior Engineer.

Involved in research, development, study and analysis of various
aspects of coding, modulations, communication theory and applications
for Deep Space Communication System Techniques for Future Space
Exploration Missions, Satellite Communications, Mobile Satellite
Experiment.

Has made contributions to many research and advanced projects
including: VOIR, Venus Balloon, Antenna Arraying, LMSS,
MSAT-X, TDA Advanced Systems RTOP's concerning optical
communication, coding and modulation techniques.

Has led the Modulation and Coding Research Work unit for
NASA's MSAT-X Project.

Made contributions in finding K=15, r=1/4 convolutional code for
the Galileo project.

Was Active in NASA RIMTECH program. Was a consultant for
Paradyne through technology transfer in the Civil Programs Office
at JPL. Designed a trellis code that was implemented for production.

Was Active in NASA SBIR program. Was technical monitor for
Phase I and II SBIR Proposals.

Was in the tiger team for ICE project and made contributions to the
analysis of radio loss for ICE.

Made contributions to JPL-FAA Helicopter Project.

Made contributions to NASA ACTS Mobile Terminal (AMT)
Project.

Made some contributions to S-band Galileo Mission.

Made several contributions to Military projects on coding and modulation.

Made contributions to the autonomous software-defined radio receivers for Deep Space communications.

Made significant contribution to channel coding for deep space communications.
Proposed new turbo codes and protograph-based LDPC codes to be used in future NASA missions. The proposed codes became CCSDS standard for space applications.
These codes are being used in many NASA missions.

Made contributions since 2007 to Coding, Modulation, and Link Protocol Study for future NASA missions

2012-present UCLA EE Dept. Adjunct Professor. Research collaboration, weekly research group meetings, joint NSF proposals.

1986-1996 Lecturer at UCLA, Electrical Engineering Department, teaching graduate courses in Information Theory, Digital Communications, Coding (TCM, and turbo codes), and Spread Spectrum Communications.

1997-2001 Lecturer at Caltech, Electrical Engineering Department, teaching graduate courses in Random Signals and Communications theory

Teaching accomplishments at Caltech: Taught graduate courses EE162, EE163a, EE163b at Caltech since January 1997. Participated in Ph.D. Qualifying Exams, Ph.D. Candidacy Exams, and Ph.D. defense committees for many graduate students at Caltech. Helped students in their research, gave new ideas for research.

1984-1991 Adjunct Professor at Northrop University, teaching courses in analog and digital communication systems, information theory and error control coding, statistical communication theory, digital communications, probability, stochastic processes, feedback control systems, spread spectrum communications, linear networks, computer networks, digital signal processing.

1982-1996 Distinguished Lecturer at West Coast University, teaching courses in Detection of Signals in Noise, Digital Communication Systems, Coding, Probability, Stochastic Processes, Logic Network Design, Digital Signal Processing, Spread Spectrum.

Current Interests:

> Research in digital communication systems, wireless communication systems, bandwidth efficient combined coding modulation techniques, digital signal processing, satellite communications, mobile communications. Channel coding for deep space communications. Spread Spectrum Systems, CDMA, Fast Frequency Hopping, Time Hopping for commercial multiple access systems, Acquisition and tracking for spread spectrum communications, Mutual User Interference Cancellation for CDMA, Turbo codes, LDPC codes and Iterative Decoding for power- and Bandwidth- limited Channels.

Professional Societies: **Fellow of IEEE**, Journal Referee for IEEE societies of Communication and Information Theory. Member of IEEE communication theory and data communication systems technical committees. Technical program representative to International Conference on Communications 1987 and Global Telecommunications Conference, 1989. Technical Program Chairman of Communication Theory Mini-Conference Globecom 93. Organizer and chairman for 16 IEEE conference sessions in the past ten years. Technical Program Chairman of IEEE Communication Theory workshop, Santa Cruz, April 1995.

> Editor for Coding Theory and Applications, IEEE Transactions on Communications June 1989-June 1991.

> Area Editor for Coding Theory and Applications, IEEE Transactions on Communications July 1991-1996.

> Guest Editor: IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, VOL. 16, NO. 2, FEBRUARY 1998

> Senior Technical Consultant IEEE Transactions on Communications 1996-2003

> Guest Editor: IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, VOL. 19, NO. 9, SEPTEMBER 2001

IEEE Paper Award

> Best paper of the year award for "The Performance of Trellis Coded Multilevel DPSK in a Fading Mobile Satellite Channel" published in IEEE Transactions on Vehicular Technology, Vol. 37, No. 2, May 1988. Award was given out in 1990.

Joint paper award of the IEEE Information Theory and IEEE Communication Theory societies for ``Accumulate Repeat Accumulate Codes" published in April 2007. Award was given in 2008.

Best poster paper award IEEE Communication Theory Workshop (CTW) 2015.

IEEE Transaction on Communications Best Papers over 50 years

D. Divsalar and M. K. Simon, "Multiple Symbol Differential Detection of MPSK," IEEE Transactions on Communications March 1990.
This paper has been selected as one of the best 56 key research papers in communications and networking over the past fifty years. It was published in a book entitled "The Best of the Best, Fifty Years of Communications and Networking Research," by the Institute of Electrical and Electronics Engineers (IEEE) Press and Wiley-Interscience, 2007.

Highly Cited Publishing Researcher

D. Divsalar was recognized as highly cited researcher for the period 1981-1999. Highly cited comprise less than one-half of one percent of all publishing researchers worldwide with truly extraordinary accomplishment s in category of Computer Science.

JPL Publications Best Paper Award

1998 Hugh Fosque best paper for ``Code Performance as a function of block size."
2000 best paper for ``A simple tight bound on error probability of block codes with application to turbo codes," The results also published in the book *Performance analysis of linear codes under ML decoding: A tutorial* by Igal Sason and Shlomo Shamai, NOW Publishers, Delft, the Netherlands, 2006.

Group Achievement Award

Advanced Communication Technology Satellite Mobile Terminal Development Team, 1994.

Project Galileo Team, 1996.

Galileo Orbital Operation Recovery Team, 1997.

Turbo Code Development Team, 1998.

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.

fastcase®
Smarter legal research.