

REFERENCES

- 1 DARPA, *DARPA Grand Challenge 2004 Rules*, Version April 1.2, dated April 2, 2003
- 2 DARPA, *DARPA Grand Challenge 2005 Rules*, dated October 8, 2004
- 3 DARPA, *Grand Challenge 2004 Final Report*, dated July 30, 2004
- 4 House Report 106-945, *Enactment of Provisions of H. R. 5408, The Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001*, Library of Congress, dated October 6, 2000
- 5 DARPA, *A Huge Leap Forward for Robotics R&D*, dated October 9, 2005
- 6 DARPA, *DARPA Grand Challenge 2004 Rules*, dated January 5, 2004
- 7 DARPA, *Report to Congress: DARPA Prize Authority*, dated March, 2006
- 8 A. I. Motorvators, *AI Motorvators Technical paper*, dated March 4, 2004
- 9 Axion Racing, *Technical Paper*, dated February 29, 2004
- 10 Axion Racing, *DARPA Grand Challenge 2005 Technical Paper*, dated August 11, 2005
- 11 Red Team, *DARPA Grand Challenge 2005 Technical Paper*, dated August 24, 2005
- 12 Red Team Too, *DARPA Grand Challenge 2005 Technical Paper*, dated August 24, 2005
- 13 DARPA, *DARPA Grand Challenge 2005 Route Data Definition File*, dated August 3, 2005
- 14 Rasmus Lerdorf and Kevin Tatroe, *Programming PHP*, O'Reilley & Associates, Inc., dated 2002
- 15 Michael Kofler, *MySQL*, Apress, dated 2001
- 16 MySQL, www.mysql.com/
- 17 DARPA, *Archived Grand Challenge 2004 Website*, <http://www.darpa.mil/grandchallenge04/index.html>
- 18 RoboSUV, http://www.robosuv.com/html/rddf_2004.html

- 19 DARPA, *Archived Grand Challenge 2005 Website*, <http://www.darpa.mil/grandchallenge05/index.html>
- 20 Team Overbot, <http://www.overbot.com>
- 21 T. Vincenty, *Direct and Inverse Solutions of Geodesics on the Ellipsoid with Application of Nested Equations*, Survey Review, Vol. XXII, No. 176, dated April, 1975 (pp. 88 - 93)
- 22 National Imagery and Mapping Agency (NIMA), Technical Report (TR) 8350.2, *Department of Defense World Geodetic System 1984: Its Definition and Relationships with Local Geodetic Systems*, Third Edition, Amendment 1, dated January 3, 2000
- 23 Alexander Gutierrez, Tugrul Galatali, Juan Pablo Gonzalez, et al., *Preplanning for High Performance Autonomous Traverse of Desert Terrain Exploiting a priori Knowledge to Optimize Speeds and to Detail Paths*, CMU-RI-TR-05-54, The Robotics Institute, Carnegie Mellon University, dated December, 2005
- 24 Chris Urmson, Charlie Ragusa, David Ray, et al., *A Robust Approach to the High-Speed Navigation for Unrehearsed Desert Terrain*, Journal of Field Robotics, Vol. 23, No. 8, Wiley Periodicals, Inc., dated 2006 (pp. 467 - 508)
- 25 Sebastian Thrun, Mike Montemerio, Hendrick Dahlkamp, et al., *Stanley: The Robot that Won the DARPA Grand Challenge*, Journal of Field Robotics, Vol. 23, No. 9, Wiley Periodicals, Inc., dated 2006 (pp. 661 - 692)
- 26 DARPA, *Robots Conquer DARPA Grand Challenge*, dated October 8, 2005
- 27 DARPA, *A Huge Leap Forward for Robotics R&D*, dated October 9, 2005
- 28 Paul G. Trepagnier, Jorge Nagel, Powell M. Kinney, et al., *KAT-5: Robust Systems for Autonomous Vehicle Navigation in Challenging and Unknown Terrain*, Journal of Field Robotics, Vol. 23, No. 8, Wiley Periodicals, Inc., 2006 (pp. 509 - 526)
- 29 D. Coombs, K. Murphy, A. Lacaze, and S. Legowik, *Driving Autonomously Offroad up to 35 km/h*, Proceedings of the IEEE Intelligent Vehicles Symposium, Dearborn, Michigan, October 4 – 5, dated 2000
- 30 DARPA, *Final Data from DARPA Grand Challenge*, dated March 13, 2004
- 31 NOVA, *A Triumph for New Orleans*, <http://www.pbs.org/wgbh/nova/darpa/gray.html>, dated March 28, 2006

- 32 Team CIMAR, *Race Log*,
http://cimar.mae.ufl.edu/gatornation/pages/race_log.html (last accessed July 26, 2009)
- 33 Digital Auto Drive, *Team DAD Technical Paper*, dated August 26, 2005
- 34 The Golem Group / UCLA, *DARPA Grand Challenge Technical Paper*, no date (2005)
- 35 Desmond N. Penny, *Rollover of Sport Utility Vehicles*, *The Physics Teacher*, Vol. 42, dated February 2004 (pp. 86 - 91)
- 36 U. S. Department of Transportation National Highway Traffic Safety Administration, *Trends in the Static Stability Factor of Passenger Cars, Light Trucks, and Vans*, DOT HS 809 868 NHTSA Technical Report, dated June, 2005
- 37 DARPA, *Participant Conference Presentation Slides*, dated May 21, 2006
- 38 Palos Verdes High School Warriors, *DARPA Grand Challenge Technical Paper*, dated March 1, 2004
- 39 Chris Urmson, Joshua Anhalt, Michael Clark, et al., *High-Speed Navigation of Unrehearsed Terrain: Red Team Technology for Grand Challenge 2004*, CMU-RI-TR-04-37, The Robotics Institute, Carnegie-Mellon University, dated June, 2004
- 40 K. R. Orlowski, E. A. Moffatt, R. T. Bundorf, and M. P. Holcomb, *Reconstruction of Rollover Collisions*, SAE 890857, dated 1989
- 41 Edmunds, Inc., <http://www.edmunds.com/> (last accessed June 7, 2010)
- 42 Cars.com, <http://www.cars.com/> (last accessed June 7, 2010)
- 43 MotorTrend Magazine, <http://www.motortrend.com/> (last accessed June 7, 2010)
- 44 Center for Intelligent Machines and Robotics, *Revised NAVIGATOR Technical Paper*, dated February 27, 2004
- 45 CyberRider, *DARPA Grand Challenge Technical Paper for Team CyberRider*, no date (2004)
- 46 The Golem Group, *The Golem Group*, no date (2004)
- 47 Palos Verdes High School Warriors, *DARPA Grand Challenge Technical Paper*, dated March 1, 2004

- 48 Team ENSCO, *Technical Paper for Team ENSCO*, dated March 3, 2004
- 49 Virginia Tech, *Technical Paper*, no date (2004)
- 50 Carl D. Crane III, David G. Armstrong II, Robert Touchton, et al., *Team CIMAR's NaviGATOR: An Unmanned Ground Vehicle for the 2005 DARPA Grand Challenge*, *Journal of Field Robotics*, Vol. 23, No. 8, Wiley Periodicals, Inc., 2006 (pp. 599 - 623)
- 51 Qi Chen and Ümit Özgüner, *Intelligent Off-Road Navigation Algorithms and Strategies of Team Desert Buckeyes in the DARPA Grand Challenge 2005*, *Journal of Field Robotics*, Vol. 23, No. 9, Wiley Periodicals, Inc., 2006 (pp. 729 - 743)
- 52 Robert Grabowski, Richard Weatherly, Robert Bolling, et al., *MITRE Meteor: An Off-Road Autonomous Vehicle for DARPA's Grand Challenge*, *Journal of Field Robotics*, Vol. 23, No. 9, Wiley Periodicals, Inc., 2006 (pp. 811 - 835)
- 53 SciAutonics/Auburn Engineering, *The Autonomous Ground Vehicle RASCAL: Team SciAutonics/Auburn Engineering in the DARPA Grand Challenge 2005*, no date (2005)
- 54 Lars B. Cremean, Tully B. Foote, Jeremy H. Gillula, et al., *Alice: An Information-Rich Autonomous Vehicle for High-Speed Desert Navigation*, *Journal of Field Robotics*, Vol. 23, No. 9, Wiley Periodicals, Inc., 2006 (pp. 777 - 810)
- 55 Team Cornell, *Technical Review of Team Cornell's Spider*, no date (2005)
- 56 Team ENSCO, *Team ENSCO's DEXTER*, no date (2005)
- 57 Deborah Braid, Alberto Broggi, and Gary Schmiedel, *The TerraMax Autonomous Vehicle*, *Journal of Field Robotics*, Vol. 23, No. 9, Wiley Periodicals, Inc., 2006 (pp. 693 - 708)
- 58 Virginia Tech Grand Challenge Team, *DARPA Grand Challenge 2005*, no date (2005)
- 59 Brett M. Leedy, Joseph S. Putney, Cheryl Bauman, et al., *Virginia Tech's Twin Contenders: A Comparative Study of Reactive and Deliberative Navigation*, *Journal of Field Robotics*, Vol. 23, No. 9, Wiley Periodicals, Inc., 2006 (pp. 709 - 727)
- 60 U. S. Code, Title 10—Armed Forces, Subtitle A—General Military Law, Part IV—Service, Supply, and Procurement, Chapter 139—Research and Development, Section 2374a, *Prizes for advanced technology achievements*, effective January 3, 2007

- 61 U. S. Army, *Future Combat Systems Overview*, dated September 15, 2008
- 62 Department of Defense, Office of the Assistant Secretary of Defense (Public Affairs), *Future Combat System (FCS) Program Transitions to Army Brigade Combat Team Modernization*, dated June 23, 2009
- 63 Gen. George W. Casey, Jr., *BCT Modernization: Versatile Capabilities for an Uncertain Future*, <http://www.army.mil/-news/2010/02/19/34735-bct-modernization-versatile-capabilities-for-an-uncertain-future/>, dated February 19, 2010
- 64 Department of the Army, Army Financial Management, Assistant Secretary of the Army for Financial Management and Comptroller, Fiscal Year (FY) 2009 Budget Estimates, *Other Procurement, Army, Tactical and Support Vehicles*, dated February, 2008, <http://www.asafm/army.mil/> (last accessed March 3, 2009)
- 65 U. S. Army, *Multifunction Utility/Logistics & Equipment Vehicle (MULE)*, dated September 15, 2008
- 66 Department of Defense, Office of the UnderSecretary of Defense (Comptroller), *Department of Defense FY 2009 Budget Request Summary Justification*, dated February 4, 2008, <http://www.defenselink.mil/comptroller> (last accessed March 3, 2009)
- 67 COL Glenn W. Walker, *Tactical Wheeled Vehicle Conference*, 2003 Tactical Wheeled Vehicles Conference, January 26 through 28, 2003, Defense Technical Information Center, National Defense Industrial Association, <http://www.dtic.mil/ndia/> (last accessed March 3, 2009)
- 68 Department of the Army, Army Financial Management, Assistant Secretary of the Army for Financial Management and Comptroller, Committee Staff Procurement Backup Book and Multiyear Exhibits FY 2004 / FY 2005 Biennial Budget Estimate Submission, *Other Procurement, Army, Tactical and Support Vehicles*, dated February, 2003, <http://www.asafm.army.mil> (last accessed March 3, 2009)
- 69 MG Vincent Boles, *Army Wheeled Vehicle Fleet: From the G-4 Foxhole*, 2008 Tactical Wheeled Vehicles Conference, February 3 through 5, 2008, Defense Technical Information Center, National Defense Industrial Association, <http://www.dtic.mil/ndia/> (last accessed March 3, 2009)
- 70 Maine Military Authority, *Capabilities: HMMWV (High Mobility Multipurpose Wheeled Vehicle)*, <http://www.maine.gov/mma/> (last accessed March 3, 2009)

- 71 Department of the Army, Army Financial Management, Assistant Secretary of the Army for Financial Management and Comptroller, Fiscal Year (FY) 2009 Budget Estimates, *Weapons and Tracked Combat Vehicles, Army*, dated February, 2008, <http://www.asafm/army.mil/> (last accessed March 3, 2009)
- 72 General Dynamics Robotics Systems, <http://www.gdrs.com/> (last accessed March 3, 2009)
- 73 SICK AG, *LMS 200/LMS 211/LMS 220/LMS 221/LMS 291 Laser Measurement Systems*, dated June, 2003
- 74 SICK AG, *Product Overview - Laser Measurement Systems*, dated June, 2005
- 75 SICK AG, *Technical Description - LMS200/211/221/291 Laser Measurement Systems*, dated December, 2006
- 76 Insight Racing, *Insight Racing*, no date (2004)
- 77 Red Team, *DARPA Grand Challenge Technical Paper*, Revision 6.1, dated April 8, 2004
- 78 DARPA, *DARPA Announces the Results from First Day of Grand Challenge QID*, dated March 8, 2004
- 79 DARPA, *Additional Teams Complete QID Course Successfully on Last Day of Trials for the DARPA Grand Challenge*, dated March 11, 2004
- 80 DARPA, *Fifteen Teams Selected to Participate in the DARPA Grand Challenge Field Test*, dated March 12, 2004
- 81 A. I. Motorvators, <http://www.aimotorvators.com>
- 82 Trimble Navigation, Ltd., *AgGPS 114 DGPS Real-time DGPS Smart Antenna*, dated 2000
- 83 DARPA, *Organizers of Autonomous Robotic Ground Vehicle Challenge Announce Initial Team Selection*, dated November 13, 2003
- 84 DARPA, *DARPA Announces the Results from the Second Day of Grand Challenge QID*, dated March 9, 2004
- 85 DARPA, *Additional Teams Successfully Complete QID Course*, dated March 10, 2004
- 86 Axion Racing, <http://www.axionracing.com/> (last accessed October 13, 2010)

- 87 Allied Vision Technologies GmbH, <http://www.alliedvisiontec.com/us/home.html> (last accessed September 3, 2010)
- 88 Allied Vision Technologies, *Big Family: The FireWire Camera Series by Allied Vision Technologies*, dated October, 2008
- 89 Epsilon Lambda Electronics Corp., <http://epsilonlambda.com/> (last accessed September 3, 2010)
- 90 American GNC Corporation, <http://www.americangnc.com/>
- 91 American GNC Corporation, *coremicro Serial Product Correlation*, dated February 5, 2003
- 92 The Blue Team, *Technical Paper Draft 1-04*, dated October 13, 2003
- 93 Internet Archive, www.archive.org/
- 94 The Blue Team, <http://www.ghost riderrobot.com/>
- 95 Crossbow Technology, Inc., <http://www.xbow.com/>
- 96 Crossbow Technology, Inc., *Product Guide for Inertial Systems*, dated August 8, 2008
- 97 Videre Design, LLC, <http://www.videredesign.com/>
- 98 Preco Electronics, Inc., *Standard PreView Operating Manual/Installation Guide*, dated 2003
- 99 Preco Electronics, Inc., *Xtreme PreView*, dated July, 2008
- 100 Preco Electronics, Inc., *High Resolution PreView*, dated July, 2008
- 101 Garmin Ltd., <http://www.garmin.com/>
- 102 NavCom Technology, Inc., *Twelve DARPA Grand Challenge 2005 Teams Use NavCom Technology's StarFire™ Network For Precise Positioning NavCom's GPS Solutions are an increasingly popular choice amongst Grand Challenge Contestants competing for this year's \$2 million prize*, dated June 20, 2005
- 103 NavCom Technology, Inc., *NavCom Technology's StarFire™ Network and GPS Receiver Provide Superior Guidance for DARPA Grand Challenge 2005 Finalists NavCom's GPS Solutions used by 6 of the 23 Grand Challenge Finalists*, dated October 10, 2005

- 104 NavCom Technology, Inc., *GPS Products*, dated January 23, 2006
- 105 NavCom Technology, Inc., *NavCom Technology, Inc to Exhibit New GPS StarFire™ Products with Global Decimeter-Level Performance and RTK GPS Receivers at InterGeo 2002*, dated September 20, 2002
- 106 Eaton Corporation, *Eaton VORAD Radar Development Toolkit Specifications*, no date
- 107 Team Overbot, *Team Overbot*, Revision 3, dated September 22, 2003 (the pages of this reference are dated February 13, 2004)
- 108 Point Grey Research, Inc., <http://www.ptgrey.com/>
- 109 Point Grey Research, Inc., *Bumblebee Stereo Vision Camera Systems*, dated February, 2009
- 110 Point Grey Research, Inc., *Point Grey Research Unveils the Bumblebee2*, dated August 23, 2006
- 111 CSI Wireless, *Vector Sensor*, dated 2002
- 112 CSI Wireless, *Vector Sensor – Frequently Asked Questions*, no date
- 113 CSI Wireless, *DGPS MAX*, dated 2001
- 114 Digital Auto Drive, *Team D.A.D. Technical Paper*, Version 1.3, dated February 19, 2004 (the pages of this reference are dated February 20, 2004)
- 115 The Golem Group, <http://www.golemgroup.com/>
- 116 FLIR Systems, Inc., *FLIR Systems and Indigo Systems Complete Merger; FLIR to Report Q4 and Fiscal 2003 Results on February 4*, dated January 6, 2004
- 117 FLIR Systems, Inc., <http://www.corebyindigo.com/>
- 118 Insight Racing, *Insight Racing Media Guide*, dated October 5, 2005
- 119 Applanix Corporation, *POS MV Specifications*, dated 2008
- 120 Applanix Corporation, *POS LV Specifications*, dated 2007
- 121 Applanix Corporation, *POS LV*, dated April 23, 2004
- 122 MiTAC International Corp., <http://www.mitac.com/> (last accessed August 25, 2009)

- 123 MiTAC International Corp., <http://www.promagellangps.com/> (last accessed August 25, 2009)
- 124 Applanix Corporation, *Applanix Announces POS LV 220 and POS LV 220 RT*, dated November 14, 2001
- 125 Applanix Corporation, *Applanix Aided-Inertial Technology helps Carnegie Mellon navigate the DARPA Grand Challenge*, dated March 5, 2004
- 126 Rob Meyer Productions, <http://www.robmeyerproductions.com/> (last accessed October 1, 2010)
- 127 Rob Meyer Productions, *Technical Paper for DARPA Grand Challenge*, no date (2004)
- 128 Omnivision Technologies, Inc., <http://www.ovt.com/>
- 129 Rover Systems, *Rover Systems*, dated February 29, 2004
- 130 Ultra Motion, <http://www.ultramotion.com/>
- 131 Omron Corporation, *Standard Proximity Sensor E2E*, dated 2009
- 132 AVID-ET and SciAutonics, *Technical Paper Addendum for DARPA Grand Challenge*, no date (2004)
- 133 William Travis, Robert Daily, David M. Bevly, et al., *SciAutonics-Auburn Engineering's Low-Cost High-Speed ATV for the 2005 DARPA Grand Challenge*, *Journal of Field Robotics*, Vol. 23, No. 8, Wiley Periodicals, Inc., 2006 (pp. 579 - 597)
- 134 SciAutonics II, *Technical Paper Addendum for DARPA Grand Challenge*, no date (2004)
- 135 R. Behringer, B. Gregory, V. Sundareswaran, et al., *SciAutonics in the DARPA Grand Challenge*, *Proceedings of the 2004 IFAC Intelligent Autonomous Vehicles Conference*⁴⁷
- 136 Team Arctic Tortoise, <http://www.gi.alaska.edu/DGC/Welcome.htm> (last accessed October 1, 2010)
- 137 Team Arctic Tortoise, *Arctic Tortoise Technical Paper*, Revision 1, no date (2004)
- 138 Team Cajunbot, *DARPA Grand Challenge 2004*, no date (2004)
- 139 Team Cajunbot, <http://www.cajunbot.com/>

- 140 Team Cajunbot, *Technical Overview of CajunBot (2005)*, no date (2005)
- 141 C&C Technologies, Inc., <http://www.cctechnol.com/>
- 142 Team Caltech, *Technical Paper*, dated February 23, 2004
- 143 Point Grey Research, Inc., *Dragonfly 2*, dated February, 2009
- 144 Point Grey Research, Inc., *The Dragonfly®2 takes off with double the speed! Check the latest Insights for more details*, dated January 20, 2005
- 145 Point Grey Research, Inc., *Dragonfly*, dated June 9, 2004
- 146 Point Grey Research, Inc., *Product Catalog – Stereo*, dated January, 2009
- 147 Inertial Science, Inc., *Resonator Rate Sensor RRS75*, dated 1999
- 148 Inertial Science, Inc., *Inertial Measurement Unit (IMU) ISIS-IMU (Rev. C)*, dated 1999
- 149 NovAtel, Inc., <http://www.novatel.com/> (last accessed August 3, 2009)
- 150 NovAtel, Inc., *Discontinued Products List*, dated April, 2009
- 151 Team LoGHIQ, *Technical Proposal*, no date (2004)
- 152 Oak Grigsby, <http://www.oakgrigsby.com/> (last accessed August 10, 2009)
- 153 Electro Switch Corporation (Electroswitch Electronic Products Division), <http://www.electro-nc.com/>
- 154 PNI Corporation, <http://www.pnicorp.com/>
- 155 Team Phantasm, *Team Phantasm's Hoopla-OR-1 ("Hoopla Off Road One")*, no date (2004)
- 156 SensComp, Inc., *Developer's Kit*, dated September 13, 2004
- 157 Team Spirit of Las Vegas, *DARPA Grand Challenge Technical Paper*, Revision 4, dated March 3, 2004
- 158 U-blox AG, <http://www.u-blox.com/>
- 159 Oshkosh Truck Co. and The Ohio State University (Team TerraMax), *Technical Paper for TerraMax*, no date (2004)
- 160 Team TerraMax, *DARPA Grand Challenge 2005*, no date (2005)

- 161 Terra Engineering, *TerraHawk DARPA Grand Challenge Entry Technical Paper*, no date (2004)
- 162 Eaton Corporation, *Eaton VORAD Collision Warning System*, dated 2001
- 163 Eaton Corporation, *Eaton Sells VORAD® System To Bendix Commercial Vehicle Systems LLC*, dated January 5, 2009
- 164 Virginia Tech Team Rocky, *DARPA Grand Challenge 2005*, no date (2005)
- 165 Honeywell International, Inc., *Tactical Advanced Land Inertial Navigator (TALIN™)*, dated February, 2007
- 166 Axion Racing, *Axion Racing is working together with Northrop Grumman and Amphitech to race in the 2005 DARPA Grand Challenge*, dated June 3, 2005
- 167 Team CIMAR, *DARPA Grand Challenge 2005*, no date (2005)
- 168 General Electric Co., <http://www.geaviationsystems.com/> (last accessed August 14, 2009)
- 169 Desert Buckeyes, *ION: The Intelligent Off-Road Navigator The Desert Buckeyes' entry in the DARPA Grand Challenge 2005*, no date (2005)
- 170 Richard Mason, Jim Radford, Deepak Kumar, et al., *The Golem Group/University of California at Los Angeles Autonomous Ground Vehicle in the DARPA Grand Challenge*, *Journal of Field Robotics*, Vol. 23, No. 8, Wiley Periodicals, Inc., 2006 (pp. 527 - 553)
- 171 Mobileye Technologies, Ltd., <http://www.mobileye.com/>
- 172 The Gray Team, *Team Gray Technical Paper*, date August 28, 2005
- 173 Intelligent Vehicle Safety Technologies 1, *Technical Description*, dated August 29, 2005
- 174 Parker Hannifin Electronic Controls, *740 Radar*, dated October, 2008
- 175 Mitre Meteorites, *2005 DARPA Grand Challenge Entry*, no date (2005)
- 176 Mojavatton, *Technical Paper*, dated August 28, 2005
- 177 Automation World, *Cognex Acquires DVT*, dated May 11, 2005, <http://www.automationworld.com/> (last accessed July 30, 2009)

- 178 Machine Vision Online, *Cognex Corp. Acquires Privately Held Rival DVT Corp. in \$115 Million Deal*, dated May 10, 2005, <http://www.machinevisiononline.org/> (last accessed July 30, 2009)
- 179 Cognex Corporation, <http://www.cognex.com/> (last accessed July 30, 2009)
- 180 Cognex Corporation, *Installation and User Guide For DVT® Vision Sensors*, dated May, 2006
- 181 Kearfott Corporation, *Miniature Integrated Land Navigation System (MILNAV®)*, dated February, 2009
- 182 MonsterMoto, *Technical Paper*, Revision A, dated August 29, 2005
- 183 Anand R. Atreya, Bryan C. Cattle, Brendan M. Collins, et al., *Prospect Eleven: Princeton University's Entry in the 2005 DARPA Grand Challenge*, *Journal of Field Robotics*, Vol. 23, No. 9, Wiley Periodicals, Inc., 2006 (pp. 745 - 753)
- 184 Princeton University, *Princeton Autonomous Vehicle Engineering » 2005 Grand Challenge*, <http://pave.princeton.edu/main/past-projects/prospect11/> (last accessed July 31, 2009)
- 185 Princeton University, *Technical Paper*, no date (2005)
- 186 ALK Technologies, Inc., <http://www.alk.com/> (last accessed July 31, 2009)
- 187 Applanix Corporation, <http://www.applanix.com/> (last accessed, July 31, 2009)
- 188 Anthony Melihen and Louis Nastro, *Race for the Prize*, *Traffic Technology International*, December 2005/January 2006 (pp. 70 - 72)
- 189 Anthony Melihen and Louis Nastro, *The DARPA Grand Challenge*, *GeoInformatics*, March 2006 (pp. 42 - 45)
- 190 Louis Nastro, *Position and Orientation Data Requirements for Precise Autonomous Vehicle Navigation*, *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Vol. XXXVII, Part B1, dated 2008 (pp. 1237 - 1242)
- 191 William Whittaker and Louis Nastro, *Utilization of Position and Orientation Data for Preplanning and Real Time Autonomous Vehicle Navigation*, *Position, Location, and Navigation Symposium*, IEEE/ION, dated 2006 (pp. 372 - 377)
- 192 Trimble Navigation, Ltd., <http://www.trimble.com/> (last accessed August 1, 2009)

- 193 Rockwell Collins, Inc., *Rockwell Collins Product Catalog*, <http://www.rockwellcollins.com/ecat/xxProductIndex.asp> (last accessed August 2, 2009)
- 194 Rockwell Collins, Inc., *Rockwell Collins Technical Publications Index*, <https://www.shopcollins.com/> (last accessed August 2, 2009)
- 195 Stanford Racing Team, *Stanford Racing Team's Entry In The 2005 DARPA Grand Challenge*, no date (2005)
- 196 Arun Lakhota, Suresh Golconda, and Anthony Maida, et al., *CajunBot: Architecture and Algorithms*, Journal of Field Robotics, Vol. 23, No. 8, Wiley Periodicals, Inc., 2006 (pp. 555 - 578)
- 197 Team Caltech, *DARPA Technical Paper: Team Caltech*, dated August 29, 2005
- 198 Isaac Miller, Sergei Lupashin, Noah Zych, et al., *Cornell University's 2005 DARPA Grand Challenge Entry*, Journal of Field Robotics, Vol. 23, No. 8, Wiley Periodicals, Inc., 2006 (pp. 625 - 652)
- 199 Northrop Grumman Corporation, *Northrop Grumman Completes Final Step In Acquisition of Litton Industries Inc.*, dated June 12, 2001
- 200 Northrop Grumman Corporation, <http://www.es.northropgrumman.com/> (last accessed August 3, 2009)
- 201 NovAtel, Inc., *SPAN Technology*, dated 2008
- 202 Ibeo Automobile Sensor GmbH, <http://www.ibeo-as.com/>
- 203 Ibeo Automobile Sensor GmbH, *Seven in one blow: ALASCA XT, the first Multi-Application Sensor for increased safety and comfort on the road*, no date
- 204 Ibeo Automotive Sensor GmbH, *Case Study*, no date
- 205 Team TerraMax, <http://www.terramax.com/>
- 206 NovAtel, Inc., *ProPak-LBplus*, Revision 5A, dated 2006
- 207 DARPA, *DARPA Grand Challenge Team Newsletter #1*, dated August 27, 2003
- 208 DARPA, *DARPA Grand Challenge 2005: Technical Paper Guidelines*, dated July 19, 2005
- 209 Team Overbot, *DARPA Comments*, dated August 22, 2003

- 210 DARPA (grandchallenge@darpa.mil), *Unpublished email*, dated February 3, 2009
- 211 NOVA, *The Great Robot Race*, <http://www.pbs.org/wgbh/nova/darpa/team.html>, dated March 28, 2006
- 212 Damian Dovarganes, *Early problems end \$1M robot race*, Associated Press, dated March 13, 2004
- 213 Axion Racing, *Frequently Asked Questions*, http://www.axionracing.com/paperwork/ARfaq_Saint.htm (last accessed April 26, 2010)
- 214 Virginia Tech, *2005 DARPA Grand Challenge*, http://www.me.vt.edu/grandchallenge/VTGC_GC05.htm (last accessed August 3, 2010)
- 215 Mallory Kraft, *California Polytechnic State University MESFAC Funding Proposal Form*, dated February 11, 2005
- 216 Florida Institute of Technology, *OASIS LIDAR Analysis*, dated June 21, 2004
- 217 SICK AG, <http://www.sick.com/> (last accessed August 31, 2009)
- 218 New Scientist, *Robot desert race faces spluttering start* (<http://www.newscientist.com/article/dn4757-robot-desert-race-faces-spluttering-start.html>), dated March 10, 2004
- 219 Navtech RADAR, Ltd., *FMCW Radar Data Sheet DS2000*, dated February, 2001
- 220 Laseroptronix, *Laser Distance Meters*, dated October 31, 2005
- 221 Laseroptronix, *Sea-Lynx Gated Camera*, dated May 26, 2004
- 222 SICK AG, *DME 2000 Distance Measuring Devices*, dated August 26, 2003
- 223 Northrop Grumman Corporation, *Northrop Grumman's Family of Fiber-Optic Based Inertial Navigation Systems*, no date
- 224 Northrop Grumman Corporation, *LN-270 Pointing Locating Navigating System (PLANS)TM INS/GPS Land Navigation System*, dated February, 2006
- 225 Systron Donner Inertial, *C-MIGITS® III*, dated October 19, 2006
- 226 Oxford Technical Solutions, Ltd., *RT Inertial and GPS Measurement Systems User Manual*, dated August 4, 2008

- 227 NovAtel, Inc., *IMU-HG*, Revision 3, dated May, 2009
- 228 Code of Federal Regulations, *Standard No. 105; Hydraulic and electric brake systems*, Title 49, Section 571, Part 105, dated October 1, 2001
- 229 GMH Engineering, *Delta Speed Sensor DRS1000*, Revision 2.2, dated 2006
- 230 National Law Enforcement and Corrections Technology Center, *2001 Model Year Patrol Vehicle Testing*, National Institute of Justice, dated February, 2001
- 231 Laseroptronix, <http://www.laseroptronix.se/>
- 232 SciAutonics I, *Technical Paper for DARPA Grand Challenge*, no date (2004)
- 233 Insight Racing, *Insight Racing Earns Berth in Finals of \$2 Million Robot Race*, dated October 5, 2005
- 234 Center for Intelligent Machines and Robotics, *Director's Message*, <http://cimar.mae.ufl.edu/CIMAR/pages/overview.html>, dated June 1, 2008 (last accessed September 30, 2010)
- 235 The Robotics Institute at Carnegie Mellon University, <http://www.ri.cmu.edu/> (last accessed October 6, 2010)
- 236 DARPA, *Grand Challenge Rules Q&A*, dated October 8, 2004
- 237 DARPA (grandchallenge@darpa.mil), *Unpublished email*, dated October 22, 2004
- 238 DARPA (grandchallenge@darpa.mil), *Unpublished email*, dated December 15, 2004
- 239 Chris Pedersen, *Unpublished email*, dated November 17, 2004
- 240 DARPA, *DARPA Grand Challenge National Qualification Event Run 1 Results*, dated September 30, 2005
- 241 Terra Engineering, <http://terraengineering.org/> (last accessed September 30, 2010)
- 242 DARPA, *Finalists Selected for DARPA Grand Challenge*, dated October 5, 2005
- 243 Charles Reinholtz, *Unpublished email*, dated November 17, 2004
- 244 ENSCO, Inc., *ENSCO's DEXTER placed sixth out of the 23 robotic vehicles competing in the final run of DARPA Grand Challenge*, dated October 10, 2005
- 245 AM General, *M1097A2 Specifications*, dated March 14, 2008

- 246 The Eigenpoint Company, <http://www.eigenpt.com/> (last accessed May 21, 2010)
- 247 Optech, Inc., *Strong Performance in Finals for Optech-sponsored Team*, no date (2005)
- 248 Benjamin F. Kuo, *Interview: Reinhold Behringer, SciAutonics LLC*, socialTECH.com, dated March 18, 2004
- 249 Anne Burke, *No Drivers Wanted*, UCLA Magazine, dated January 1, 2006
- 250 Alain Kornhauser, *About Prospect Eleven and Princeton University's "DARPA Project"*, Princeton University, dated November 29, 2005
- 251 Department of Defense, *DARPA Grand Challenge: Defense Advanced Research Projects Agency Competition for Autonomous Robotic Ground Vehicles; 2004, 2005, and 2007 Events, Urban Challenge, Reports, Movies (Two CD-ROM Set)*, Progressive Management, dated May 2, 2007
- 252 Martin Buehler, Karl Iagnemma, and Sanjiv Singh, *The 2005 DARPA Grand Challenge: The Great Robot Race*, Springer-Verlag Berlin Heidelberg, 1st ed., dated October 23, 2007
- 253 Amazon.com, Inc., <http://www.amazon.com/> (last accessed August 10, 2009)
- 254 DARPA, *DARPA Grand Challenge Finalizes Field for Qualification, Inspection and Demonstration Event*, dated December 19, 2003
- 255 Oshkosh Truck Corporation, *MTVR Medium Tactical Vehicle Replacement*, dated December, 2002
- 256 Oshkosh Truck Corporation, *MTVR Medium Tactical Vehicle Replacement*, dated April, 2007
- 257 Source Interlink Media, Inc., *2005 Ford Escape Crash Tests*, <http://www.autobuyguide.com/2005/12-aut/ford/escape/crash-tests/index.html> (last accessed March 3, 2010)
- 258 Toyota Motor Corporation, *03 Tundra eBrochure*, <http://www.toyotacertified.com/tundra.html> (last accessed July 24, 2008)
- 259 Tomcar, <http://www.tomcar.com/>
- 260 Recreatives Industries, www.maxatvs.com
- 261 DARPA, *DARPA Announces Proposed Route for Autonomous Robotic Ground Vehicle Challenge*, dated June 18, 2003

- 262 Auburn University, <http://www.eng.auburn.edu/> (last accessed August 15, 2009)
- 263 DARPA, *Overview Presentation*, no date (2003)
- 264 DARPA, *Untitled (Responses to Questions asked by teams participating in the 2004 GCE)*, dated November 26, 2003
- 265 DARPA, *DARPA Grand Challenge Team Newsletter #3*, dated January 28, 2004
- 266 DARPA, *QID Process Description*, no date (2004)
- 267 DARPA, *Grand Challenge 2005: DARPA Schedules Autonomous Robotic Ground Vehicles Event*, dated June 8, 2004
- 268 DARPA, *DARPA Grand Challenge Kicks Off With National Qualification Event*, dated September 28, 2005