

**PROCEEDINGS OF THE
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HIGH LEVEL CONTROL

PATTERN ORIENTED DESIGN OF THE CONVENIENT HIERARCHICAL AUTONOMOUS STATE MACHINE FORMALISM FOR AUV HIGH LEVEL CONTROL

**B. Dupire, A. Folleco, Dept. Of Ocean and System Engineering, FAU, and S. Smith, Brigham Young Univ., USA
PROCEDURES PLANNER FOR AN AUV**

**M.Barbier, Office National d'Etudes et de Recherches Aerospatiales and J.Lemaire, GESMA, FRANCE
CHEMICAL PLUME MAPPING WITH THE REMUS AUTONOMOUS UNDERWATER VEHICLE**

**B.Fletcher, Space and Naval Warfare Systems Center San Diego, USA
POWER AND BANDWIDTH EFFICIENT ROUTING CONTROL FOR COMMUNICATING AUVS**

**J.T. Napoli, Washington University, Department of Systems Science and Mathematics, USA
AUTONOMOUS UNDERSEA SYSTEMS NETWORK (AUSNET)**

**R. Nitzel, C. Benton, Technology Systems, Inc. (TSI), S.G.Chappell, AUSI, USA
NEW CAPABILITIES OF THE REDERMOR UNMANNED UNDERWATER VEHICLE**

**N. Toumelin and J. Lemaire, GESMA, FRANCE
BLUEFIN BPAUV: AN ORGANIC WIDE-AREA BOTTOM MAPPING AND MINE-HUNTING CAPABILITY**

**S. Willcox, J. Vaganay, R. Grieve, Bluefin Robotics Corp., J. Rish, Coastal Systems Station, USA
DEVELOPMENT OF NEW AUV "AQUA EXPLORER 2000" AND ITS CABLE TRACKING SENSOR**

J. Kojima, KDD R&D Labs, T. Asai, Y. Shirasaki, Kokusai Marine Engineering Corp. , K. Asakawa, Tokyo University, JAPAN

**EXPERIMENTAL TEST-BED FOR MULTI-VEHICLE CONTROL, NAVIGATION AND COMMUNICATION
R. Bachmayer, N.E.Leonard, Princeton University, USA**

CONTROL/HYDRODYNAMICS

PECTORAL FIN FLAPPING WITH AND WITHOUT DEFORMATIONS IN THE BIRD WRASSE; 3-D UNSTEADY COMPUTATIONS

W.C. Sandberg & R.Ramamurti, Laboratory for Computational Physics and Fluid Dynamics, NRL R.Lohner, Computational Sciences and Informatics Dept., George Mason University

J.Walker, Department of Biological Sciences, University of Southern Maine

M.M.Westneat, Department of Zoology, Field Museum of Natural History, USA

ASSESSING THE PERFORMANCE OF OSCILLATING FIN THRUSTER VEHICLES

M.Kemp, B.Hobson, J.Janet[#], C.Pell, E.Tytell*, Nektan Research LLC ([#]Also with Duke Univ *Now at Harvard)

THE INFLUENCE OF PASSIVE, LEADING EDGE TUBERCLES ON WING PERFORMANCE

P. Watts, Applied Fluids Engineering and F.Fish, Dept. of Biology, West Chester University, USA

MANEUVERING PERFORMANCE OF A ROLLING AND PITCHING WING

C.B. Martin, F.S. Hover and M.S. Triantafyllou, MIT, Department of Ocean Engineering, USA

CONTROLLING AN OUTPUT WAVE SHAPE DURING UNDULATORY SWIMMING

N.J. Moore, L. Howle, Edmund T. Pratt School of Engineering, Duke University and M.Murray, USNA, USA

ROLE OF CARAPACE MORPHOLOGY IN DYNAMIC STABILITY OF RIGID-BODIED BOXFISHES

I.K. Bartol and M.S. Gordon, Dept. of Organismic Biology, Ecology, & Evolution, UCLA,

M. Gharib, California Intitute of Technology, D. Weihs, Technion Dept. of Aerospace

P. Webb, School Natl Resources & Dept of Biology,UM, USA

THE EFFECT ON THRUST AND EFFICIENCY OF AN UPSTREAM KARMAN WAKE ON AN OSCILLATING FOIL

D.N.Beal, F.S.Hover and M.S.Triantafyllou, MIT, Department of Ocean Engineering, USA

A BIOMIMETIC PROPULSOR FOR ACTIVE NOISE CONTROL: EXPERIMENTS

P. Bandyopadhyay, W.Krol, D. Thivierge, W. Nedderman, Naval Undersea Warfare Center and

M. Mojarad, Biomimetic Products, Inc.

EXPERIMENTS WITH A 2D OSCILLATING FOIL FOR PROPULSION AND MANEUVERING

F.S. Hover, D.A. Read and M.S. Triantafyllou, MIT, Department of Ocean Engineering, USA

OPTIMIZATION OF UNDULATORY FLAP PROPULSORS

J.I.Martin & L.E. Howle, Edmund T.Pratt, School of Engineering, Duke Univ. and M. Murray, USNA, USA

CAN VERSATILE PROPULSIVE SYSTEMS BE ENERGETICALLY EFFICIENT? THE ROLE OF SPECIALIZATION IN MARINE AND SEMI-AQUATIC MAMMALS

T. Williams, Department of EE Biology, Long Marine Lab-COH, University of California at Santa Cruz, USA

RESPONSE OF COMPLIANT FOILS TO DYNAMIC LOADINGS PRODUCED BY ONCOMING VORTICES

LCDR M.M.Murray, US Naval Academy and L. Howle, Duke University, USA

A PETRI NET APPROACH TO THE DESIGN OF ROV CONTROL SYSTEMS

P. Coletta, CNR-IAN, Dept. of Communication, Computer and Systems Sciences, Univ. of Genoa, ITALY

IMPACT OF THE HYDRODYNAMIC NONLINEAR MANEUVERING MODEL FIDELITY ON COMPARISONS WITH IN-WATER DATA

D.E.Humphreys, Vehicle Control Technologies, Inc., USA

DEVELOPMENT OF A SIX-DEGREE OF FREEDOM SIMULATION MODEL FOR THE REMUS AUV

T. Prestero, MIT/WHOI Joint Program in Oceanographic Engineering, USA

TOWARD MODEL BASED TRAJECTORY TRACKING OF UNDERWATER ROBOTIC VEHICLES: THEORY AND SIMULATION

D.A.Smallwood & L.L.Whitcomb, Johns Hopkins University, USA

UNDERWATER GLIDER DYNAMICS AND CONTROL

J.G.Graver & N.E.Leonard, Dept of Mechanical and Aerospace Engineering, Princeton University, USA

A VARIABLE BUOYANCY CONTROL SYSTEM FOR A LARGE AUV

S.Tangirala & J.E.Dzielski, ARL, Penn State Univ., USA

GUIDANCE AND CONTROL OF AN AUTONOMOUS UNDERWATER GLIDER

R Moitie and N. Seube, ENSIETA, FRANCE

MODELING AND CONTROL OF VARIABLE LENGTH AUV

R.McEwen, MBARI, K.Strietlien, Bluefin Robotics, Corp, USA

ACQUISITION OF DYNAMICS CONTROL ALGORITHM OF AUTONOMOUS UNDERWATER VEHICLE BY REINFORCEMENT LEARNING AND TEACHING METHOD CONSIDERING THRUSTER FAILURE

H.Kawano, Dept. of Envir. and Ocean Engineering & T.Ura, Underwater Research Center, Univ. of Tokyo, JAPAN

AN ADAPTIVE CONTROL FOR A CRAWLING UNMANNED VEHICLE BY USING PID CONTROL & NEURO-FUZZY LOGIC

K.H.Lee, Naval Surface Warfare Center, USA

PECTORAL FIN DESIGN AND SWIMMING PERFORMANCE: TESTING THRUST AND EFFICIENCY MODELS WITH STRUCTURE AND BEHAVIOR OF LIVING FISHES

M.W. Westneat, Department of Zoology, Field Museum of Natural History & J.A Walker, Department of Biological Science, University of Southern Maine, USA

SYSTEMS

AUTONOMOUS UNDERWATER VEHICLES (AUVS): A LOOK AT COAST GUARD NEEDS TO CLOSE PERFORMANCE GAPS AND ENHANCE CURRENT MISSION PERFORMANCE

S.T.Tripp, USCG Research and Development Center, USA

A VERY LOW-COST AUTONOMOUS UNDERSEA VEHICLE USING COMMON MATERIALS AND COMPONENTS

S. Stutman, Midnight Underwater Vehicles, USA

A PLAN FOR THE DEVELOPMENT OF A DEEP-DEA UNMANNED UNDERWATER VEHICLE

P.M. Lee and S.W. Hong, Korean Research Institute of Ships and Ocean Engineering, KOREA

OPERATIONS

SURVEYING DEEP-SEA HYDROTHERMAL PLUMES WITH THE AUTONOMOUS BENTHIC EXPLORER (ABE)

D.R. Yoerger and A.M. Bradley, WHOI and F. Stahr and R. McDuff, University of Washington, USA

MISSION CONTROL SYSTEM FOR SOLAR AUV AND RESULTS LONG TIME OPERATION TRIALS

M.D.Ageev, V.E.Gornak, D.B.Khmelkov, A.Ph. Scherbatyuk, Ju.V.Vaulin, IMTP FEB RAS, RUSSIA and

D.R.Blidberg, AUSI, USA

MICROAUVS I: PLATFORM DESIGN AND MULTI-AGENT SYSTEMS DEPLOYMENT

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MICROAUVSII: CONTROL

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NAVIGATION

A METHOD FOR TERRAIN POSITIONING OF AN AUV

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INERTIAL NAVIGATION SYSTEM FOR GUIDANCE AND CONTROL OF UNDERWATER VEHICLE

S.M. Zanoli, G. Conte, Department of Electronics and Automatics, University of Ancona, ITALY

EXPERIMENTS IN CALIBRATION OF AN INERTIAL MEASUREMENT UNIT FOR UUV APPLICATIONS

D. J.CAMPBELL AND D.J. STILWELL, UNITED STATES NAVAL ACADEMY, USA

DYNAMIC CALIBRATION OF A MAGNETIC HEADING SENSOR USING AN ACOUSTIC NET

R. Stokey, Oceanographic Systems Lab, WHOI, USA

A POST-PROCESSING KALMAN SMOOTHER FOR UNDERWATER VEHICLE NAVIGATION

E.I. Gustafson, E. An and S. Smith, Florida Atlantic University, Dept. of Ocean Engineering, USA

LOST2: A TERRAIN BASED UNDERWATER POSITIONING SYSTEM - RESULTS FROM SEA TRIALS

R.Beckman and A.Martinez, Tulane University, B.Bourgeois, NRL, USA

NAVIGATION OF AUV BASED ON IMAGE RECOGNITION OF ARTIFICIAL UNDERWATER LANDMARKS

S.C.Yu, T. Ura, T. Fujii, H.Kondo, Underwater Ura Lab., IIS, Univ. of Tokyo, JAPAN

SENSORS

A LOW-ENERGY SENSOR FOR AUV BASED JELLYFISH TRACKING

J. Rife and S.M. Rock, Stanford University and MBARI, USA

ADVANCED SONAR TECHNOLOGIES FOR 21ST CENTURY TORPEDOES AND UUV'S

J.G.Kelly, G.T.Stevens, NUWC Division Newport and F. Nussbaum, Anteon Corporation, USA

RELATIVE POSITION ESTIMATION FOR INTERVENTION CAPABLE AUVS BY FUSING VISION AND INERTIAL MEASUREMENTS

A.Huster and S.M.Rock, Aerospace Robotics Lab, Stanford Univ, USA

ANTIBODY, CELL-BASED AND TRANSGENIC FISH BIOSENSORS FOR AUTONOMOUS MONITORING OF ENVIRONMENTAL TOXICANTS

D. Meffert, Center for Bioenvironmental Research, Tulane & Xavier Univs., D.Blake, Tulane Univ.,

R. Blake, Xavier University of Louisiana and R.G.Rey, COTS Technology, LLC, USA

EXPERIENCES ON ACTUATOR FAULT DETECTION, DIAGNOSIS AND ACCOMMODATION FOR ROVS

M.Caccia, R. Bono, Ga. Bruzzone, E. Spirandelli, G. Veruggio, Consiglio Nazionale delle Ricerche, ITALY

AIR CONDITIONING SYSTEM FOR THE U.S. NAVY AN/WLD-1(V)-1 REMOTE MINEHUNTING VEHICLE

S. Wrieden, Lockheed Martin/Perry Tech & R. Draper, UNH, USA

USING MODELING AND SIMULATION TO DEVELOP THE AUTONOMOUS MOBILE PERISCOPE SYSTEM (AMPS)

S. Ebner, R.Knutson NSWC Carderock Div. and S.Rollins, PMRF, USA

SIMULATION

DEFINITION OF A RANDOM SEARCH STRATEGY FOR SURF ZONE RECONNAISSANCE VEHICLES

L.Howell, BAE Systems, USA

AUTONOMOUS LITTORAL WARFARE SYSTEMS EVALUATOR - MONTE CARLO (ALWSE-MC)

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AUTONOMOUS LITTORAL WARFARE SYSTEMS EVALUATOR - ENGINEERING SIMULATION (ALWSE-ES)

J. M. Eadie, NAVSEA/NSWC/CSS and R.D.Mace, BAE SYSTEMS, USA

VISUALIZATION TECHNIQUES TO SUPPORT MONITORING AND CONTROL OF AUTONOMOUS PLATFORMS

M. Plumlee, R. Komerska, R. Arsenaault, C. Ware & L. Mayer, Data Visualization Research Lab,

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AN ASSESSMENT OF AUV NAVIGATION PERFORMANCE USING LONG BASELINE ACOUSTIC MODELING AND SIMULATION

F. Song, A. LaVigne, E. An and S. Glegg, Ocean Engineering Dept., Florida Atlantic University, USA

OBJECTIVE BASED DYNAMIC NAVIGATION PLANNING

P. McDowell and B. Bourgeois, NRLSSC, J. Cheramie and J. Gravley, C&C Technologies, USA

CONDUCTING POLYMERS AS BUILDING BLOCKS FOR BIOMIMETIC SYSTEMS

P.G. Madden, J.D. Madden, P.A. Anquetil, H-h Yu, T.M. Swager and I.W. Hunter, Mech. Engineering, MIT

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