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U.S. Naval Postgraduate School Faculty Bulletin, 1966-1978

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1978-02-27

## Naval Postgraduate School Faculty Bulletin, 1978-02-27

Monterey, California, Naval Postgraduate School

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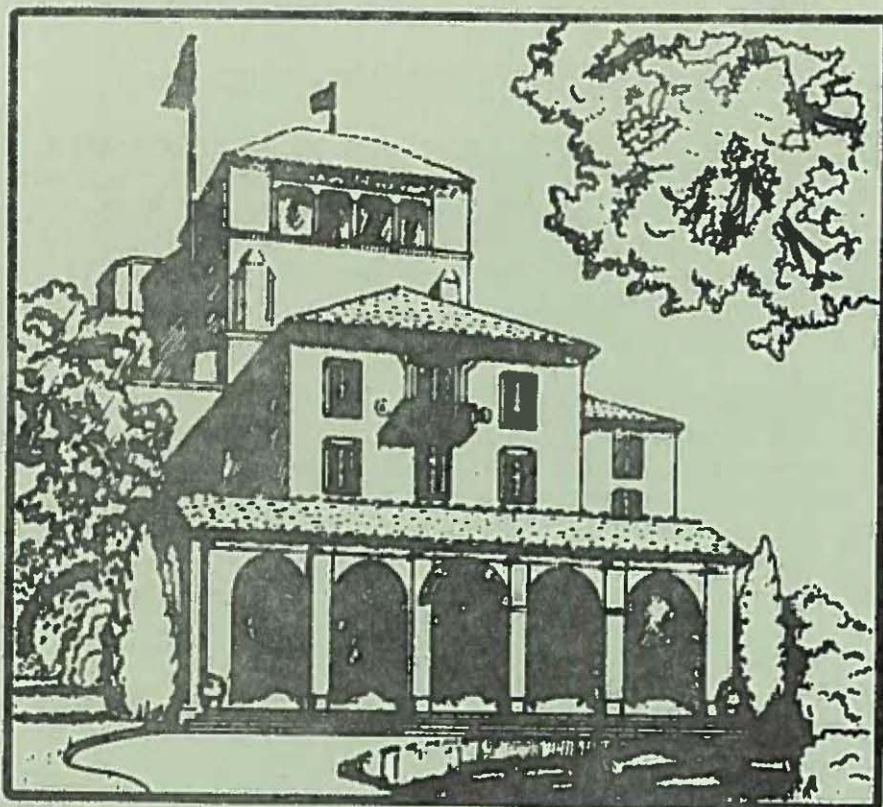


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Naval Postgraduate School

# FACULTY BULLETIN

ISSUE NO. 2-78

27 February 1978

## SHORT COURSES

In mid-January Associate Professors Peter C. C. Wang and Russel H. S. Stolfi presented two short courses on their Technological Threat Forecasting Methodology to 80 analysts at the Naval Intelligence Support Center. Additional lectures were presented to representatives from NAVMAT, NSWC, DIA, DIO, DT, DE, NAVSEC, ONR MIA, FTD, NRL, CIA FSTC, and NIC.

## FACULTY PROFESSIONAL ACTIVITIES

Associate Professor James K. Arima, Department of Administrative Sciences, was invited to participate in the Office of Naval Research Seminar on Recruitment Advertising Impact and Recruitment Resources Allocation held in Alexandria, Virginia, on 30 January 1978. Professor Arima described Navy and Marine Corps recruiting studies conducted at the Naval Postgraduate School and assessed the availability and quality of data for continuing research in Navy recruiting advertising and resource allocation.

Associate Professor Gerald G. Brown, Operations Research and Computer Science Departments, presented a series of three seminars in Knoxville, Tennessee, for personnel of Oak Ridge Nuclear Laboratory, Tennessee Valley Authority and the University of Tennessee Departments of Management Science and Computer Science on February 16-17. The seminars were entitled: "Open Questions in the Design of Mathematical Programming Systems," "Preprocessing Linear and Nonlinear Optimization Models," and "Large Scale Network Optimization."

Associate Professor C. J. Garrison of the Department of Mechanical Engineering was appointed to the editorial board of the new international journal on ocean engineering, APPLIED OCEAN RESEARCH.

Professor N. F. Schneidewind of Administrative Sciences and Computer Science has been elected Secretary-Treasurer of the Association for Computing Machinery Special Interest Group on Software Engineering.

On 25 January 1978, Associate Professor Peter C. C. Wang was elected to the Executive Board of the American Defense Preparedness Association.

## FACULTY PUBLICATIONS

Bradley, G. H., Brown, G. G., and Graves, G. W.

Design and Implementation of Large Scale Primal Transshipment Algorithms. (Conception et Application d'Algorithmes Pour des Problemes de Transbordement de Grande Taille.) Management Science, Vol. 24, 1977, pp. 1-34. Issued by the Faculte des Sciences de l'Administration, Universite Laval, Quebec, Canada, January 1978. Translator: Professor Michel Blondeau.

This publication has been issued in concert with a French translation by Professor W. Price of the authors' capacitated primal transshipment network optimization system GNET, re-baptized as "GINETTE."

Franke, R. H.

Review of: Carl de Boor, "Quadratic spline interpolation and the sharpness of Lebesgue's inequality," J. Approx Theory 17 (1976) pp. 348-358, in Mathematical Reviews, MR54#10937, p. 1548.

Fuhs, Allen E.

Land Contouring to Optimize Wind Power, Proceedings, AIAA 16th Aerospace Sciences Meeting, January 1978.

Abstract: Certain locations on a hill have higher local wind velocity than the freestream value. The augmentation of wind power depends on the shape of the hill. Using numerical optimization techniques, the optimum shape has been determined for several different constraints. Knowledge of the optimum shape is valuable for two reasons. First, the site selection is aided if the best contour is known; near optimum shapes may occur naturally. Second, for a given site, the excavation and fill necessary to achieve optimum shape can be determined. Four cases are discussed. Each case had different constraints and yielded different values of wind power augmentation as follows: Case 1, 226 percent; Case 2, 311 percent; Case 3, 210 percent; and Case 4, 156 percent.

Houlihan, T.

Development of a Shipboard Pollution Monitoring System, ISA Transactions, Vol. 16, No. 3, Instrument Society of America, 1977.

Abstract: The prototype of an automatic oil pollution monitor was built and tested. In the system developed, a direct difference method of total organic carbon determination was used to ascertain oil concentrations. Using this monitor, it was possible to specify the concentration of any oil, independent of type, in a known water sample. In the final phases of the study, preliminary investigation on prototype improvements and oil concentration determinations in bilge water was initiated.

FACULTY TRAVEL ORDERS TO 28 FEBRUARY 1978

Supported by Reimbursable and Other Funds

eighton, J. W.	22-25Jan78	Sacramento CA	Research consultation.
ary, J. D.	30Jan-1Feb78	Burbank CA	Lockheed Maint Sys, PMS 306.
orr, J. B.	30-31Jan78	Sunnyvale CA	ESL-research.
vereign, M. G.	30Jan-1Feb78	Burbank CA	Lockheed Maint Sys, PMS 306.
ller, J. A.	31Jan-4Feb78	Washington DC	Confer NAS Code AIR 33013.
		Los Angeles CA	
tus, H. A.	31Jan-1Feb78	Moffett Field CA	Visit ARC facility.
irus, A. F.	1-8Feb78	Honolulu HI	TAC D&E Program.
chnitzer, A. B.	1-2Feb78	Moffett Field CA	CE course OC 2120.
lleher, M. D.	2-3Feb78	Pasadena CA	Heat Xfr Res Inc-research.
cto, P. J.	2-3Feb78	Pasadena CA	Heat Xfr Res Inc-research.
cci, P. F.	2-4Feb78	Pt. Hueneme CA	CEL-research project.
ltiner, G. J.	3-4Feb78	San Jose CA	Research, San Jose State Univ.
yang, C. K.	5-19Feb78	Washington DC	HRM Conf; MIT; Soc for Gen Sys
		Boston MA	Research; ONR Conf.
		Washington DC	
		Annapolis MD	
atzer, M. F.	5-9Feb78	Washington DC	NAVAIR.
ll, R. W.	7-12Feb78	Washington DC	AIAA mtg; dept research prog.
lleher, M. D.	7-8Feb78	Oakland CA	DOE Source Evaluation Board.
ry, S. H.	7-11Feb78	Ft. Leavenworth KS	HIMAG Program.
ver, D. P.	8-13Feb78	Newark NJ	ASA Directors mtg; research
		Washington DC	sponsor.
erlie, E. C.	8-9Feb78	Menlo Park CA	U.S. Geological Surv-consult.
vereign, M. G.	8-11Feb78	Washington DC	Manpwr/Pers research.
us, H. A.	8-12Feb78	Orlando FL	Cross-S Comm Mtg.
ighton, J. W.	9Feb-6Mar78	Atlanta GA	Internat Technol Conf; Def
		Huntsville AL	Preparedness Assn Mtg; research
		Tampa FL	and prog sponsors.
		Jacksonville FL	
		Washington DC	
		Cleveland OH	
		Columbus OH	
		Indianapolis IN	
		Crane IN	
		Denver CO	
r, C. B.	9-11Feb78	Los Angeles CA	Research.
lfi, R. H. S.	10-12Feb78	Nellis AFB NV	Nellis Tank Damage Tests.
lson, R. R.	13-15Feb78	Los Angeles CA	Joint FPI/USC Mtg.
vereign, M. G.	13-16Feb78	Bremerton WA	Research.
irus, A. F.	14-18Feb78	San Diego CA	TAC D&E Planning.
acher, G. E.	14-15Feb78	Sacramento CA	Calif Air Resources Board.
, T. F.	14-18Feb78	San Francisco CA	ISSCC Conf.
l, M. A.	15-16Feb78	Moffett Field CA	CE course OC 2120.
wn, G. G.	15-19Feb78	Washington DC	DOD Mat Distr Study; Optimiza-
		Knoxville, TN	tion Research Sem; UCLA.
		Los Angeles CA	

yton, D. M.	16-17Feb78	San Diego CA	Adv Marine Vehicle Mtg; SES, Rohr Marine, Inc.
olfi, R. H.	16-19Feb78	Nellis AFB NB	Visit MAJ McDermont.
llacher, P.	17-25Feb78	Timberline OR	NORPAX Mtg.
Nelley, T. R.	17-18Feb78	Stanford CA	Research, Stanford Univ.
ipple, D. R.	18-27Feb78	Kona HI	Adv In-Patient Care Mtg.
irall, C. W.	19Feb-24Mar78	Rota Spain	Atmos research aboard USNS KANE; High Energy Laser Prog.
uldry, J. M.	20-25Feb78	White Sands NM	AN/TPS-59 testing.
urance, E. J.	20-27Feb78	Camp Pendleton CA	DIA, OJCS and ISA Mtg.
lch, P. R.	20-26Feb78	Washington DC	ISA Conf.
hutz, B. M.	20Feb-2Mar78	Washington DC	Research sponsors and Student Assignment Pers; Inter Studies Assoc Mtg; Duke Univ.
		Ft. Bragg NC	
		Durham NC	
erwin, R. G.	20-24Feb78	Washington DC	Research sponsors Pentagon and DARPA.
olfi, R. H.	20-22Feb78	Nellis AFB NV	Visit MAJ McDermont.
rwood, R. W.	21-24Feb78	Mt. Hood OR	NORPAX Mtg.
ney, R. L.	21-24Feb78	Government Camp OR	NORPAX Mtg.
rry, S. H.	21-26Feb78	Ft. Knox KY	ACVT Prog research.
rkins, J.	22Feb-6Mar78	Washington DC	Research, NRL; Western Reserve Univ; NACE Mtg; AIME Annual Mtg.
		Cleveland OH	
		Houston TX	
		Denver CO	
chnitzer, A. B.	22-23Feb78	Moffett Field CA	CE course OC 2120.
ine, M. B.	26Feb-4Mar78	China Lake CA	Systems Eng short course.
Nelley, T. B.	26Feb-3Mar78	Denver CO	AIME Annual Mtg; Univ of Wyoming.
		Laramie WY	
lson, J. E.	26Feb-3Mar78	Washington DC	Brief NLR & NAVELEX on SATCOM.
atzer, M. F.	26Feb-1Mar78	Washington DC	NAVAIR.
udde, R.H.	26Feb-1Mar78	NAS Brunswick ME	ASW Program.
ods, W. M.	36Feb-1Mar78	Brunswick ME	Off-Campus ASW Prog at NAS.
hwirzke, F. R.	28Feb-6Mar78	Los Alamos NM	APS Topical Conf on Hi Temp Plasma.

upported by O&MN Funds

rk, D. E.	31Jan-1Feb78	Moffett Field CA	Visit ARC facility.
os, J. W.	1-7Feb78	Washington DC	Dir Net Assess Mil Bal Mid East
ses, C. R.	7-11Feb78	Washington DC	Fed Procurement Inst & American Assembly of Collegiate Schools of Business.
ig, G. H.	7-12Feb78	Yosemite Park CA	Solar Terrestr Coupl Conf.
ik, M. H.	8-11Feb78	Pt. Mugu CA	Safety Survey.
rwood, R. W.	9-11Feb78	La Jolla CA	Nat'l Marine Fisheries Serv.
rmont, G. H.	9-11Feb78	Livermore CA	Microcomputer Conf at U.C.
pper, D. F.	13-14Feb78	Oakland CA	USNS H. H. HESS.
oci, P. F.	15-16Feb78	San Francisco CA	Marine Steam Propulsion Sem.
raday, D. A.	16-18Feb78	Washington DC	ORSA Exec Comm Mtg.
adley, G. H.	20-24Feb78	Detroit MI	ACM Computer Conf.

arker, P. J.	21-25Feb78	Washington DC	CNO Exec Panel Mtg.
urke, R. H.	23-25Feb78	Centerville Beach CA	Visit NAVFAC
ilson, O. B.	23-24Feb78	Centerville Beach CA	NAVPAC tour.

Cost to the Government

armont, G. H.	27-28Jan78	Santa Clara CA	Visit Gen Rad/Time Data Div.
armont, G. H.	31Jan-1Feb78	Santa Clara CA	Visit Gen Rad/Time Data Div.
ltthan, R. W.	31Jan-2Feb78	Stanford CA	SCHIFF Mem Lect; Dual Research Supercond Accel.
ayton, D. M.	2-6Feb78	Long Beach CA	McDonnell-Douglas & Navy League Conf.
remgen, J. M.	9-11Feb78	Washington DC	Mgmt Accounting Pract Comm.
inholzer, R.	9Feb-12Mar78	Hamburg Germany Munich Germany Graz Austria Taipei Taiwan Lungtan Taiwan	Microcomputer lectures.
ipple, D. R.	15-18Feb78	Washington DC	ONR Conf.
ir, M. D.	16-17Feb78	San Luis Obispo CA	Lecture at CALPOLY.
emgen, J. M.	17-18Feb78	Los Angeles CA	W. Reg Exec Comm, Amer Account Assoc.
mstock, C.	18-19Feb78	Belmont CA	MAA/SIAM Mtg.
ulkner, F. D.	18-19Feb78	Belmont CA	MAA/SIAM Mtg.
anke, R. H.	18-19Feb78	Belmont CA	MAA/SIAM Mtg.
skell, R. E.	18-19Feb78	Belmont CA	MAA/SIAM Mtg.
hoenstadt, A. L.	18-19Feb78	Belmont CA	MAA/SIAM Mtg.
lde, C. O.	18-19Feb78	Belmont CA	MAA/SIAM Mtg.
ipper, D. F.	20-24Feb78	Miami FL	Oc Therm Energy Conv Conf.