

PHOTOGRAMMETRIC ENGINEERING and REMOTE SENSING

Volume XLVII

October 1981

Number 10

COVER PHOTO — Stereo-pair of the Kathmandu Valley in Nepal prepared from Landsat images taken on March 20 and 21, 1977. Scale is 1/500,000 on a UTM projection. Submitted by the Environmental Research Institute of Michigan at Ann Arbor, one of the results from a project for the government of Nepal.

TECHNICAL ARTICLES

- Orientation and Construction of Models. Part I: The Orientation Problem in Close-Range Photogrammetry
Atsushi Okamoto1437
- Digitizing and Automated Output Mapping Errors
L. G. Sam Thompson1455
- Two-Dimensional Resampling of Line Scan Imagery by One-Dimensional Processing
Daniel E. Friedmann1459
- Estimation of Atmospheric Path-Radiance by the Covariance Matrix Method
Paul Switzer, William S. Kowalik, and Ronald J. P. Lyon1469
- Stand Density Estimation on Panoramic Transparencies
W. A. Befort, B. L. Kessler, and H. N. Anderson1477
- Spectral Behavior of Wheat Yield Variety Trials
J. L. Hatfield1487
- Satellite Sensing of Irrigation Patterns in Semiarid Areas: An Indian Study
S. Thiruvengadachari1493

(Continued on page 1389)

Second-class postage paid at Falls Church, Virginia and at additional mailing offices.

Photogrammetric Engineering and Remote Sensing (ISSN 0099-1112) is published monthly by the American Society of Photogrammetry, 105 N. Virginia Ave., Falls Church, Virginia 22046. Publication Office—Everybody's Press, Hanover, Pa. 17331. (Also see Notice on second following page.)

Copyright 1981 by the American Society of Photogrammetry. Reproduction of this issue or any part thereof (except short quotations for use in the preparation of technical and scientific papers) may be made only after obtaining the specific approval of the Editor.

The Society is not responsible for any statements made or opinions expressed in the technical papers, advertisements, or other portions of this Publication.

MEMBERSHIP RATES: Membership in the American Society of Photogrammetry is open to any person actively engaged in the practice of Photogrammetry, Photo-interpretation and Remote Sensing, or who by means of education or profession is interested in the application or development of these arts and sciences. The annual dues for Regular members are \$25.00 which includes a \$12.50 member subscription to the Society's official journal, "Photogrammetric Engineering and Remote Sensing." The annual dues for accredited student members are \$10.00 which includes a \$7.00 student subscription to the official journal. (All memberships are on a calendar year basis.) Postmaster: send address changes to the American Society of Photogrammetry, 105 North Virginia Avenue, Falls Church, Virginia 22046.

SUBSCRIPTION RATES: Persons or organizations that are not affiliated with the Society may obtain non-member subscriptions to Photogrammetric Engineering and Remote Sensing in accordance with the following schedule:

- Non-member subscription . . . \$30.00 per year (calendar)
 - Student* non-member subscription . . . \$10.00 per year (calendar)
- (* Students must submit evidence of enrollment)

Printed in the United States of America.

(Continued from page 1387)

NEWSLETTER	1507
PROFESSIONAL PLACEMENT	1503
ENGINEERING REPORTS	1501
SMITHSONIAN SCIENCE INFORMATION EXCHANGE	1454
1982 ACSM-ASP ANNUAL CONVENTION	1458
SHORT COURSE, PRACTICAL APPLICATIONS OF CLOSE-RANGE PHOTOGRAMMETRY	1476
1981 ACSM WORKSHOP SCHEDULE	1476
FORUM, <i>Stereoscopic Depth Perception</i>	1482
15TH INTERNATIONAL CONGRESS ON HIGH SPEED PHOTOGRAPHY AND PHOTONICS ..	1486
CARTOGRAPHY AND GEODESY PROGRAM.....	1491
CALL FOR PAPERS, SECOND INTERNATIONAL SYMPOSIUM ON PHOTOFINISHING TECHNOLOGY	1491
II TECHNOLOGY EXCHANGE WEEK.....	1492

SOCIETY AFFAIRS

Officers of the Society	1391
List of Sustaining Members	1395
4th Edition, <i>Manual of Photogrammetry</i>	1468
ASP Manual Prices	1505
ASP Publications.....	1506

JOURNAL AFFAIRS

Permission to Photocopy	1389
Index to Advertisers.....	1393
What <i>Photogrammetric Engineering and Remote Sensing</i> is	1393
Forthcoming Articles	1499
Instructions to Authors	1500
Journal Staff	1500

Permission to Photocopy

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee of \$2.25 through the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale.

NOTICE: Correspondence relating to all business and editorial matters pertaining to this and other Society publications should be directed to the American Society of Photogrammetry, 105 Virginia Ave., Falls Church, VA 22046, including inquiries, memberships, subscriptions, changes in address, manuscripts for publication, advertising, back issues, and the MANUALS OF PHOTOGRAMMETRY, REMOTE SENSING, and COLOR AERIAL PHOTOGRAPHY. The telephone number of the Society Headquarters is (703) 534-6617.
