

Name: P.Dr.Ahmed Mohamed Abdel-Mutal

Title: **Head of the Department of Basic Engineering Sciences**

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Room:

Biography	<p><u>1)Ph.D. in Physico-Mathematical Sciences /1977</u> From Faculty of Physics, Odessa State University, Ukraine(USSR) Specialization: Applied Mathematics (Theoretical Solid State Physics) Thesis : Iconicity and Electronic Band Structures</p> <p>2) <u>B.Sc. in Science /1973</u> From Faculty of Science, Alexandria University. Specialization: Physics Grade: Very good with Second Class Honour</p> <p>3)<u>B.Sc. in Electrical Engineering /1966</u> From Faculty of Engineering, Alexandria University. Specialization: Electrical Engineering (Electro-Physics Branch) Grade: Distinction with First Class Honour.</p>
Research Interests	Electronic Band Structures, Mean value Point in Crystals, Crystal Ionicities. Integral Transformations, Celestial mechanics,
Publications	<p><u>LIST OF PUBLICATIONS</u></p> <p>1) “Coefficients of hydraulic pressure for energy gaps and refractive index for A³B⁵ Crystals”, V.K.Bashanov, A.M.Mutaal & V.Y.Coloshenko; Physics and Techniques of semiconductors, Vol. 9, No. 10 (USSR)</p> <p>2) “Mean value Point in the Wurtzite Crystals”, E.K.Doitsha, A.M.Mutaal; Conference on Semi-Conductors, Lovov, USSR, 1975</p> <p>3) “Band Structure for Crystals A²B⁶”, The 4th All Union Conference on Application of compounds, USSR, Odessa, Nov. 19, 1976, V.K.Bashanov, A.M.Mutaal.</p> <p>4) “Band Structure of Flurite type Crystals”, Conference on Energy Band Structure calculations Properties of Crystals, Keav, March 1976, V.K.Bashanov, A.M.Mutaal.</p> <p>5) “Baldereschi Points for some non-cubic Lattices”,</p>

- V.K.Bashanov, A.M.Mutaal; Phys-Stat-Sol. (b), 80, K89 (1977),Germany.
- 6) “Valence-Band Density of States for Mg₂Si from Pseudopotential Calculations”, V.K.Bashanov, A.M.Mutaal;Phys- stat-Sol. (b), 87, K77 (1978), Germany.
- 7) “Interaction Parameter in III-V semi-conductor Solid Solutions”, V.K.Bashanov, A.M.Mutaal; Phys-stat-Sol. (b), 86, K139 (1978), Germany.
- 8) “Internal Strain Parameters in Diamond type Crystals”, V.K.Bashanov, A.M.Mutaal; Phys-stat- Sol. (b), 86, K7 (1978),Germany.
- 9) “Crystal Ionicities of Binary Crystals A(N)B(8-N)”, A.M.Mutaal, Ali M.Okaz and Mustafa Husain,The Bulletin of the Faculty of Engineering, Alexandria University,Vol. XIX, (1980), No.1, Egypt.
- 10) “Bond Ionicities of complex Crystals A(n) B(m), Applications to two AB(2) crystals: CaF₂ and Cd I₂.”, A.M.Mutaal and Ali M.Okaz; The Bulletin of the Faculty of Engineering, Alexandria University, Vol. XXI (1982), Egypt.
- 11) “Electronic Energy Bands in the Flourite Ca F₂”, A.Okaz, A.M.Mutaal; The Bulletin of the Faculty of Engineering, Alexandria University, Vol.XXI (1983), Egypt.

LIST OF BOOKS PUBLISHED

A) Several books in Physics during the period (1978-1980) books for the preparatory and first year education Engineering Faculty, Alexandria University, in the following subjects:

- a - Sound and Optics
- b - Electricity and Magnetism
- c - Properties of matter
- d – Thermodynamics

All printed and authored in Egypt.

B) Books Published in Mathematics during the period (1980-2002):

1) “*Analytic Geometry and trigonometry*”

A text book for the second year of Secondary Education in Libya (Mathematics specialization).

Printed in 1989 and is currently issued.

Printed by Moltaka Prentice Hall / Limasol / Cyprus / P.O.Box 6527.

2) ***“Transformation Geometry and Non-Euclidian Geometry”***

A text book for the fifth year of Institutes of Education (Mathematics Departments) in Libya. Printed in 1991 and is currently issued. Executed by Aditar Prentice Hall / Italy.

3) ***“Analytic Geometry and Vectors in a Plane”***

Printed by Arabian Institute of Development, P.O.Box 5300/14, Lebanon.

4) ***“Solid Geometry and Vectors in Space”***

Printed by Aditar Prentice Hall / Italy.

5) ***“Plane Analytic Geometry”***

For students of Science Faculty and High Institutes
Printed by ELGA.Prentice Hall, issued in year 2000.

P.O.Box : 536
Fax : (+356) 493180
Tel. : (+356) 493653
E-mail : elgaput@camline.net.mt, Valetta, Malta.

6) ***“Fundamentals of University Geometry”***

Printed by The New United Book Shop / Mar Elias, Kanafani Center, Lebanon.

7) ***“Vector Solid Geometry”***

Printed by ELGA Prentice.Hall, Valetta, Malta,

P.O.Box : 536
Fax : (+356)493180
Tel. : (+356)493653
E-mail : elgaput@camline.net.mt,

8) ***“Calculus / part one / Differentiation”***

For students of both Science and Engineering Faculties and High Institutes

Printed by Moltaka Prentice Hall / Limasol / Cyprus / P.O.Box 6527.

9) ***“Calculus (1) / Differentiation”, (Second Edition).***

For students of both Science and Engineering Faculties and High Institutes

Printed by Moltaka Printece Hall / Limasol / Cyprus / P.O.Box 6527.

Issued in year 2001.

10) ***“Foundation of Geometry”(C.R.Wylie & Jr.MaGraw-Hill)***

A reference book, **translated** from English to Arabic. Printed by Aditar Prentice Hall / Italy.

11) ***“Introduction to University Mathematics”***

For students of Science Faculty, Engineering Faculty and High Institutes.

Printed by: The New United Book Shop / Mar Elias, Kanafani Center, Lebanon.

12) “Vector Mechanics / part (1) / Static.”

For students of both Science and Engineering
Faculties and High Institutes
Printed by Mol taka Prentice Hall / Lima sol / Cyprus /
P.O.Box 6527.

13) “Statics”, modernized Edition.

For students of both Science and Engineering
Faculties and High Institutes
Printed by Venus Enterprise International
(VEI), **Egypt 1998/1999**,
International number I.S.B.N 977-5803-09-8.

14) “Vector Statics, for Universities and High Institutes”

For students of both Science and Engineering
Faculties and High Institutes.
Printed by The New United Book Shop /
Mar Elias, Kanafani Center, Lebanon. Issued in
year **2003**.

15) “Vector Dynamics, for Universities and High Institutes”

For both Science and Engineering Faculties and
High Institutes. Printed by The New United Book
Shop / Mar Elias, Kanafani Center, Lebanon.
Issued in year **2003**.

16) “University Applied Mathematics. (Vol.1)”

A reference book for students of both Science
and Engineering Faculties, High Institutes,
Graduate students and all the interested in
Physics and Applied Math.
Printed by Venus Enterprise International
(VEI), EGYPT. Issued in year **2004**

17) “University Applied Mathematics. (Vol.2)”

A reference book for students of both Science
and Engineering Faculties, High Institutes,
Graduate students and all those interested in
Physics and Applied Math. Printed by Venus
Enterprise International
(VEI), EGYPT. Issued in year **2004**

18) “Integral Calculus”

A text book for students of both Science and
Engineering Faculties and High Institutes.
Produced by The Public Union for Arab
Students (present locating in Syria), and printed
by The New United Book Shop / Mar Elias,
Kanafani Center, Lebanon. Issued in year **2004**

19) “Integral Transformations and Special functions”

An advanced Engineering Mathematics Book for
Engineers and Scientists, published by the National
Office For Research and Development, Libya.

The New United Book Shop / Mar Elias, Kanafani
Center, Lebanon. Issued in year **2007**.

20) "*Differential Calculus*"

A text book for students of both Science and Engineering Faculties and High Institutes. Produced by by University of 7October, Printed by, El Dar El dawleya, /Cairo/ Egypt. Issued in year **2009**.

OTHER UNIVERSITY ACTIVITIES

- 1) Head of the Engineering Mathematics Branch of The Mathematics Department in the Faculty of Engineering, Tripoli, Libya (1981-1990)
- 2) Head of the Study and Examinations Committee of Mathematics Department, Faculty of Science, Tripoli, Libya (1994-2001)
- 3) Member of the Courses and Translation Committee in Math Dept. Tripoli, Libya (1994-1998)
- 4) Supervision of M. Sc. Degrees for The Students in Faculty of Eng. Alex. Univ. Alex., Egypt. and many others in Libya.

