MEMORANDUM OF UNDERSTANDING

Between

Hindusthani Education Societys

Azad Mahavidyalaya, Ausa

and

Shiv Chhatrapati Shikshan Sanstha's

ESTD 1963

Rajarshi Shahu Mahavidyalaya, Latur
(Autonomous)

MEMORANDUM OF UNDERSTANDING

Between

Hindusthani Education Societys

Azad Mahavidyalaya, Ausa

and

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur
(Autonomous)

This Memorandum of Understanding has been signed between Hindustani Education society's, Azad Mahavidyalaya. Ausa- 413520, Dist Latur, Maharashtra and Rajarshi Shahu Mahavidyalaya, Latur (Autonomous) ,Maharashtra on **04 December, 2020**.

WHEREAS:

Hindustani Education Society's, Azad Mahavidyalaya, Ausa- 413520, Dist Latur, Maharashtra is dedicated to the cause of higher education for rural and Minority students. The College is recognized by the UGC under section 2 (f) and 12 (B)and has minority status. The College is accredited by NAAC with institutional score of 77.45 with **'B+' grade** in 2004 and reaccredited with **'B+'** grade with CGPA **2.67** in 2016. The College offers B.A., B.Com and B.Sc. Programs at UG level and M. A (Urdu) at PG Level The college runs three distance learning centres of open universities viz, Maulana Azad National Urdu University, Hyderabad, Yashwantrao Chavan Maharashtra Open University for B.A in Marathi medium and Yashwantrao Chavan Maharashtra Open University for B.A in Urdu medium.

WHEREAS:

Shiv Chhatrapati Shikshan Sanstha's, Rajarshi Shahu Mahavidyalaya, Latur (Autonomous), Maharashtra is an institute working since 1970 in the field of Education. The focused area of the institute is Education, Research and Extension. The College has evolved a **'Shahu Pattern'** which is widely known as **'Latur Pattern'** of education which was **recommended by the State Govt.** to implement it all over

Maharashtra **(Circular dated 8 March, 2001)**. The Govt. of Maharashtra honoured parent institute Shiv Chhatrapati Shikshan Sanstha with the award of **'Ideal Educational Institute'** in the very first year of its inception **(2000).** The College is recognized by the UGC under section 2 (f) and 12 (B). The college received **Best College Award -Urban (2008-09) and Best Principal Award (2014) from the parent university Swami Ramanand Teerth Marathwada University, Nanded, and Dr. Panjabrao Deshmukh best institution award by YCMOU, Nashik (2012)** for our college center (Biggest in Maharashtra). The college bagged **"A" grade** with an institutional score of **88.25% (March 2003) in the accreditation (I Cycle)** and retained **"A" grade (CGPA 3.38) in Jan.2010** in **II Cycle. In new RAF , college received B++ grade with CGPA 3.99. T**he college have CPE **Status from UGC** since 2014. UGC and Govt. of Maharashtra conferred an **Autonomous College Status since June 2013and in 2019 , UGc gave continuation to autonomous status for further six years. . The college has ISO 9001-2008 QMS certification.**The College is implementing **DST-FIST scheme in '50-50' mode** from 2015-16. The College offers B.A., B.Sc., B.Sc. C.S., B.C.A., B.Sc. B.T., B.Com, B. Lib & ISc., M.Sc. C.S., M.Sc. Physics., M.Sc. Chemistry, M.Sc. Biotechnology, M.Sc. Botany, M.Sc. Zoology, M.Sc. Mathematics, M.A.(Sans, Eco, Geog, Pol.Sci., English) and M.Com programmes.

BOTH THE COLLEGES WISH TO HAVE COLLABORATION FOR FOLLOWING SERVICES:

1. Services:

- Sharing and mobilization of resources, infrastructure and utilization of the expertise from the various departments of college.
- Core research through projects under guidance of experts with faculty and students exchange programs sharing the knowledge bank.
- Collaborative extension programs focusing community services abiding the guidelines of Government of India and Maharashtra state Government.
- Skill development programs strengthening the interdepartmental interactions to promote the faculty improvement and student placements.
- Faculty from both colleges will be exchanged for the period of a week per semester with the mutual consent of the Principal .
- Financial liabilities if any will be borne respective college for their staff and students.
- Colleges will be organizing webinar, conferences, seminars in collaboration with consents of each other.
- Organization of skill development programs with mutual consent .
- Participation of students for campus Interviews with mutual consent .

2. Terms:

The term for this Mou will be initially for five years from today .

3. Project Administration:

Dr. E. U. Masumdar, Principal, Azad Mahavidyalaya, Ausa and **Dr. Mahadev Gavhane, Principal, Rajarshi Shahu Mahavidyalaya, Latur (Autonomous)** will be responsible for the co-ordination of activities under the contract, for acceptance and approval of the reports and of other deliverables.

4. Performance:

Both the colleges undertake to perform the services with the highest standards of professional and ethical competence and integrity.

5. Law Governing Contract and Language:

Both the colleges shall be governed by the law of Union of India and the language of the contract shall be English/ Hindi.

6. Dispute Resolution:

Any dispute arising out of contract, which cannot be amicably settled between the colleges, shall be referred to adjudication/ arbitration in accordance with the laws of country.

Authorized Signatory:

Sign

Name: Dr. **E.U. Masumdar**

Principal , Azad Mahavidyalaya, Ausa, Tq. Ausa, Dist. Latur Pin-413520

Principal
Azad Mahavidyalaya
Ausa, Dist. Latur.

Designation/Seal

Azad Mahavidyalaya ★ AISHE Code C-7439 ★ Ausa, Dist. Latur

Date: 04.12.2020

Witness

Dr. M. A. Barote

NAAC Coordinator and HoD Phy

Dr. N. K. Sayyed

IQAC Coordinator and HoD , English

Authorized Signatory:

Sign: 4.12.2020

Name: Dr. Mahadev Gavhane

Principal, Rajarshi Shahu Mahavidyalaya, Latur-413 512 (Autonomous)

Principal
Rajarshi Shahu Mahavidyalaya,
LATUR-413 512

Designation /Seal

RAJARSHI SHAHU MAHAVIDYALAYA ★ LATUR

Date: 04.12.2020

Witness

Dr A J Raju

Vice Principal and HoD , Commerce

Dr A A Yadav

IQAC Coordinator and HoD Phy

MEMORANDUM OF UNDERSTANDING

Between

Hindustani Education Society's

Azad Mahavidyalaya, Ausa

Dist. Latur

and

Navyuvak Shikshan Prasarak Mandal Chapoli's

Sanjeevanee Mahavidyalaya, Chapoli Dist. Latur

MEMORANDUM OF UNDERSTANDING

Between

Hindustani Education Society's

Azad Mahavidyalaya, Ausa

and

Navyuvak Shikshan Prasarak Mandal Chapoli's

Sanjeevanee Mahavidyalaya, Chapoli Dist. Latur

This Memorandum of Understanding has been signed between Hindustani Education society's, Azad Mahavidyalaya. Ausa- 413520, Dist Latur, Maharashtra and **Navyuvak Shikshan Prasarak Mandal Chaoli's,** Sanjeevanee Mahavidyalaya, Chapoli, Dist. Latur, Maharashtra on **10 July,2020**.

WHEREAS:

Hindustani Education society's, Azad Mahavidyalaya,Ausa- 413520, Dist Latur, Maharashtra dedicated to the cause of higher education for rural and Minority students. The College is recognized by the UGC under section 2 (f) and 12 (B). The College was accredited by NAAC with institutional score of 77.45 with **'B+' grade** in 2004 and reaccredited with **'B+'** grade with institutional CGPA of **2.67** in 2016. The College offers B.A., B.Sc., and B.Com. Programmes. The college also runs three distance learning centres of open universities viz, Maulana Azad National Urdu University, Hyderabad, YashwantraoChavan Maharashtra Open University B.A Marathi medium and YashwantraoChavan Maharashtra Open University B.A Urdu medium.

WHEREAS:

Sanjeevanee Mahavidyalaya, Chapoli Tq.Chakur Dist.Latur (M.S) is multifaculty college situated in rural area on Latur-Nanded road. Keeping in view the educational needs of the rural masses Navyuvak Education Society, Chapoli established Sanjeevanee Mahavidyalaya ,Chapoli in the year 1999 since then the college has been catering the needs of the rural students.

The college offers undergraduate courses such as B.A, B.Sc, B.C.A & B.C.S with basic subjects Marathi, Hindi, English, Urdu, Pali, History, Sociology, Public-administration, Economics, Maths, Poli-science, Geography, B.Sc faculty offers basic subjects, Chemistry, Physics, Mathematics, Botany, Zoology, keeping place with time and sensing the needs of the students, applied subjects like Microbiology, Dairy Science, Computer science, Electronics, Industrial chemistry, Fishery science, Analytical chemistry, Agro-microbiology, Geology, Environmental science, Agrochemical and fertilizers, Statistics, Horticulture, Dyes and Drugs, Ecology, Fruits and Quality Control, Seed technology, Computer application, Computer maintenance were started from the year 1999.
The college not only provides education in basic and applied subjects but also pays attention to the current innovative approaches towards the higher education. With the advent of computer technology in almost every sphere of life, it is highly sought for starting graduation courses in computer science stream. To meet the need of the students the college has started B.C.A & B.C.S courses.
University results of our college are highly appreciable. Students from Marathi, and English topped in the university examinations. Recently UGC has permitted to run Career Oriented Course in Chemistry and English from the year 2013-2014. The college has established Competitive Examination Guidance Cell which has achieved desired goals through the success of the students who have cleared MPSC and UPSC examinations and achieved placements across the country.

BOTH THE COLLEGES WISH TO HAVE COLLABORATION FOR FOLLOWING SERVICES:

1. Services:

- Sharing and mobilizationof resources, infrastructure and utilization of the expertise from the departments of college.
- Core research through projects under guidance of experts with faculty and students exchange programs sharing the knowledge bank.
- Collaborative extension programs focusing community services abiding the guidelines of Government of India and Maharashtra state Government.
- Skill development programs strengthening the interdepartmental interactions to promote the faculty improvement and student placements.
- **Faculty Exchange:** A faculty from both colleges will be exchanged for the period of a week per semester with the mutual consent the faculty and dates.
- Travelling expenses for the faculty will be borne by concerned colleges.
- Accommodation to the faculty will be provided by the host colleges.
- Financial liabilities if any will be borne respectivecollege for their staff and students.

2. Terms:

Both colleges shall perform the services, the period as may be subsequently agreed by the colleges in written form initially for the period of 5 Years.

3. Project Administration:

The client designates **Dr. E. U. Masumdar, Principal, Azad Mahavidyalaya, Ausa** and **Dr. D. N. Chate, Principal, Sanjeevanee Mahavidyalaya, Chapoli,** will be responsible for the co-ordination of activities under the contract, for acceptance and approval of the reports and of other deliverables.

4. Performance:

Both the colleges undertake to perform the services with the highest standards of professional and ethical competence and integrity.

5. Law Governing Contract and Language:

Both the colleges shall be governed by the law of Union of India and the language of the contract shall be English/ Hindi.

6. Dispute Resolution:

Any dispute arising out of contract, which cannot be amicably settled between the colleges, shall be referred to adjudication/ arbitration in accordance with the laws of country.

Authorized Signatory:

Principal , Azad Mahavidyalaya,
Ausa, Tq. Ausa, Dist. Latur
Pin- 413520

Sign: 10/07/20

Name: Dr. E.U. Masumdar

Designation/Seal

Date: 10-07-2020

Witness

Dr. N. K. Syed

NAAC/IQAC Coordinator

AZAD MAHAVIDYALAYA AUSA Dist. LATUR

Authorized Signatory:

Principal, Sanjeevanee Mahavidyalaya,
Chapoli, Dist. Latur Maharashtra-
413513

Sign:

Name: Dr. D. N. Chate

Dr. Dhananjay N. Chate
(M.Sc; M.Phil, Pn.d.)
Principal
Sanjeevanee Mahavidyalaya, Chapoli
Tq. Chakur Dist. Latur

Designation /Seal

Date: 10-07-2020

Witness

Prof. Dr. B. N. Chate

NAAC/IQAC Coordinator

Sanjeevanee Mahavidyalaya Chapoli Tq.Chakur Dist.Latur

MEMORANDUM OF UNDERSTANDING

Between

Hindustani Education Society's

Azad Mahavidyalaya, Ausa

and

Shri Shivaji Shikshan Prasarak Mandal, Barshi's

Shri Shivaji Mahavidyalaya, Barshi
(DBT Star Status College)

MEMORANDUM OF UNDERSTANDING

Between

Hindustani Education Society's

Azad Mahavidyalaya, Ausa

and

Shri Shivaji Shikshan Prasarak Mandal, Barshi's

Shri Shivaji Mahavidyalaya, Barshi (DBT Star Status College)

This Memorandum of Understanding has been signed between Hindustani Education society's, Azad Mahavidyalaya. Ausa- 413520, Dist Latur, Maharashtra and **Shri Shivaji Shikshan Prasarak Mandal, Barshi's,** Shri Shivaji Mahavidyalaya, Barshi,(DBT Star Status College),Dist. Solapur, Maharashtra on **01January,2021.**

WHEREAS:

Hindustani Education society's, Azad Mahavidyalaya,Ausa- 413520, Dist Latur, Maharashtra dedicated to the cause of higher education for rural and Minority students. The College is recognized by the UGC under section 2 (f) and 12 (B). The College was accredited by NAAC with institutional score of 77.45 with **'B+' grade** in 2004 and reaccredited with **'B+'** grade with institutional CGPA of **2.67** in 2016. The College offers B.A., B.Sc., and B.Com. Programmes. The college also runs three distance learning centres of open universities viz, Maulana Azad National Urdu University, Hyderabad, YashwantraoChavan Maharashtra Open University B.A Marathi medium and YashwantraoChavan Maharashtra Open University B.A Urdu medium.

WHEREAS:

Shri Shivaji Shikshan Prasarak Mandal, Barshi's, Shri Shivaji Mahavidyalaya, Barshi (DBT Star Status College), Dist. Solapur-413 411 was established in 1960. It is situated on the Pune-Latur state highway. It aims at providing higher education and all-round development of the students from the rural area. Due to the kind co-operation and keen interest of the social workers, farmers and sincere efforts of the principals, teachers, students and non-teaching staff it achieved a good name among parents and people of Barshi and nearby area. Hence, at present, it is a well established, well furnished and well equipped two faculty college, (Arts and Science) with P.G. of English, Marathi and Hindi granted. Four social sciences and Five Science P.G. with Research centersmeeting the needs of higher education.

Attractive building, well equipped laboratories, spacious playground, multipurpose gymnasium, central library with 95,000 books and 150 periodicals and journals, beautiful and green campus with boys and ladies hostels, central guest house, multipurpose halls, conference hall are the assets of our college. The Library is has INFLIBNET online consortium to facilitate online access to the students, teachers & researchers. The Library also provides the news clippings service to library end-users.

BOTH THE COLLEGES WISH TO HAVE COLLABORATION FOR FOLLOWING SERVICES:

1. Services:

- Sharing and mobilizationof resources, infrastructure and utilization of the expertise from the departments of college.
- Core research through projects under guidance of experts with faculty and students exchange programs sharing the knowledge bank.
- Collaborative extension programs focusing community services abiding the guidelines of Government of India and Maharashtra state Government.
- Skill development programs strengthening the interdepartmental interactions to promote the faculty improvement and student placements.
- **Faculty Exchange:** A faculty from both colleges will be exchanged for the period of a week per semester with the mutual consent the faculty and dates.
- Travelling expenses for the faculty will be borne by concerned colleges.
- Accommodation to the faculty will be provided by the host colleges.
- Financial liabilities if any will be borne respectivecollege for their staff and students.

2. Terms:

Both colleges shall perform the services, the period as may be subsequently agreed by the colleges in written form initially for the period of 5 Years.

3. Project Administration:

The client designates **Dr. E. U. Masumdar, Principal, Azad Mahavidyalaya, Ausa** and **Prof. Dr. P. R. Thorat, Principal, Shri Shivaji Mahavidyalaya, Barshi (DBT Star Status College),** will be responsible for the co-ordination of activities under the contract, for acceptance and approval of the reports and of other deliverables.

4. Performance:

Both the colleges undertake to perform the services with the highest standards of professional and ethical competence and integrity.

5. Law Governing Contract and Language:

Both the colleges shall be governed by the law of Union of India and the language of the contract shall be English/ Hindi.

6. Dispute Resolution:

Any dispute arising out of contract, which cannot be amicably settled between the colleges, shall be referred to adjudication/ arbitration in accordance with the laws of country.

Authorized Signatory:

Principal , Azad Mahavidyalaya,
Ausa, Tq. Ausa, Dist. Latur
Pin- 413520

Sign:

Name: Dr. E.U. Masumdar
Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Designation/Seal

Date: 01-01-2021

Witness

Dr. M. A. Barote

NAAC/IQAC Coordinator

Authorized Signatory:

Principal, Shri Shivaji Mahavidyalaya,
Barshi (DBT Star Status College), Dist.
Solapur Maharashtra-413 411

Sign:

Name: Dr. P. R. Thorat
PRINCIPAL
Shri Shivaji Mahavidyalaya,
Barshi, Dist. Solapur-413411

Designation /Seal

Date: 01-01-2021

Witness

Prof. Dr. S. D. Pawar

NAAC/IQAC Coordinator

MEMORANDUM OF UNDERSTANDING

BETWEEN

Maharashtra Shikshan Samiti's

MAHARASHTRA MAHAVIDYALAYA, NILANGA

and

Hindustani Education Society's

AZAD MAHAVIDYALAYA, AUSA

MEMORANDUM OF UNDERSTANDING

Between

Maharashtra Shikshan Samiti's

MAHARASHTRA MAHAVIDYALAYA, NILANGA

and

Hindusthani Education Society's

AZAD MAHAVIDYALAYA, AUSA

This Memorandum of Understanding has been signed between Maharashtra Shikshan Samiti, Nilanga's, Maharashtra Mahavidyalaya, Nilanga, - 431521 Dist. Latur and Hindustani Education Society's, Azad Mahavidyalaya. Ausa- 413520, Dist Latur on dated **10th December, 2020.**

WHEREAS:

The Maharashtra Shikshan Samiti was established by Former Chief Minister of Maharashtra State Late Dr. Shivajirao Patil Nilangekar in 1968. The institute was established with a view to cater education to the rural and border area masses in Nilanga Tehsil. Maharashtra Mahavidyalaya was established in June, 1970 to cater higher education in the Nilanga periphery. The college is under 100% Grant-in-Aid for B.A., B.Com. And B.Sc. The college is permanently affiliated to Swami Ramanand Teerth Marathwada University, Nanded. The College is recognized by the UGC under section 2 (f) and 12 (B). The college received **Best College Award -Rural (2013-14) and Best Principal Award (2015-16) from the parent university Swami Ramanand Teerth Marathwada University, Nanded.** The college bagged **"B" grade** with an institutional CGPA score of **2.67 (Jan. 2012) in the accreditation (II Cycle)** and

Processing, Preservation and Storage, 3.Dairy Technology, 4. Corrugated Packaging Technology, 5. Bakery & Confectionary Technology. The college also offers distance education through parent university distance education program for M.A. (English, Hindi, Marathi, History, Public Administration, Political Science, Economics and Sociology) and M.Com. The college also has study center of Yashwantrao Chavan Maharashtra Open University, Nashik catering different programs like B.A and B.Com.

WHEREAS:

Hindustani Education Society's, Azad Mahavidyalaya, Ausa- 413520, Dist Latur, Maharashtra is dedicated to the cause of higher education for rural and Minority students. The College is recognized by the UGC under section 2 (f) and 12 (B) and has minority status. The College is accredited by NAAC with institutional score of 77.45 with **'B+' grade** in 2004 and reaccredited with **'B+'** grade with CGPA **2.67** in 2016. The College offers B.A., B.Com and B.Sc. Programs at UG level and M. A (Urdu) at PG Level The college runs three distance learning centers of open universities viz, Mualana Azad National Urdu University, Hyderabad, Yashwantrao Chavan Maharashtra Open University for B.A in Marathi medium and Yashwantrao Chavan Maharashtra Open University for B.A in Urdu medium.

BOTH THE COLLEGES MUTUALLY AGREE TO HAVE COLLABORATION FOR FOLLOWING SERVICES:

1. Services:

- Sharing and mobilization of academic resources, infrastructure and utilization of the expertise from the various departments of both colleges to some limited extent.
- Core research through projects under guidance of experts with faculty and students exchange programs for sharing the knowledge.
- Collaborative extension programs focusing community services abiding the guidelines of Government of India and Government of Maharashtra State.
- Skill development programs strengthening the interdepartmental interactions to promote the faculty improvement and student placements.
- Faculty from both colleges will be exchanged for the period of a week per semester with the mutual consent of the Principal.
- Financial liabilities if any will be borne respective college for their staff and students.
- Colleges will be jointly organizing webinars, conferences, and seminars in collaboration with consents of each other

- Participation of students for campus Interviews with mutual consent.

2. Term:

The term for this MoU will be initially for five years from date of signing the MoU.

3. Project Administration:

Dr. M.N. Kolpuke, Principal, Maharashtra Mahavidyalaya, Nilanga, Dist. Latur and Dr. E. U. Masumdar, Principal, Azad Mahavidyalaya, Ausa will be responsible for the co-ordination of activities under the contract, for acceptance and approval of the reports and of other deliverables.

4. Performance:

Both the colleges undertake to perform the services with the highest standards of professional and ethical competence and integrity.

5. Law Governing Contract and Language:

Both the colleges shall be governed by the law of Union of India and the language of the contract shall be English/ Hindi.

6. Dispute Resolution:

Any dispute arising out of contract, which cannot be amicably settled between the colleges, shall be referred to adjudication/ arbitration in accordance with the laws of country.

7. Jurisdiction: `

The jurisdiction for all the litigations for this MoU will be limited to Latur District.

Authorized Signatory:

Maharashtra Mahavidyalaya Nilanga, 431521

Sign

Dr. M.N. Kolpuke,
Principal, Maharashtra Mahavidyalaya,
Nilanga, Dist. Latur- 413521

PRINCIPAL
Maharashtra Mahavidyalaya
Nilanga 413521 Dist.Latur

Designation/Seal

Date: 10.12.2020

Witness

Authorized Signatory:

Azad Mahavidyalaya * Ausa, Dist. Latur * AISHE Code C-7439

Sign: 28/12/20

Name: Dr. E.U. Masumdar
Principal ,Azad Mahavidyalaya,
Ausa, Tq. Ausa, Dist. Latur
Pin- 413520

Principal
Azad Mahavidyalaya
Dist. Latur

Designation /Seal

Date: 10.12.2020

Witness

MEMORANDUM OF UNDERSTANDING

Between

Hindustani Education Society's

Azad Mahavidyalaya, Ausa

and

Pathri Taluka Shikshan Prasarak Mandal,

Katruwar Arts, Ratanlal Kabra Science and B. R. Mantri Commerce College Manwath, Dist. Parbhani

MEMORANDUM OF UNDERSTANDING

Between

Hindusthani Education Societys

Azad Mahavidyalaya, Ausa

and

Pathri Taluka Shikshan Prasarak Mandal,

Katruwar Arts, Ratanlal Kabra Science and B. R. Mantri Commerce College Manwath, Dist. Parbhani

This Memorandum of Understanding has been signed between Hindustani Education society's, Azad Mahavidyalaya. Ausa- 413520, Dist Latur, Maharashtra and **P.T.S.P. Mandal's K.K.M. College, Manwat – 431505 Dist. Parbhnai** on **30 January, 2021**.

WHEREAS:

Hindustani Education society's, Azad Mahavidyalaya, Ausa- 413520, Dist Latur, Maharashtra dedicated to the cause of higher education for rural and Minority students. The College is recognized by the UGC under section 2 (f) and 12 (B). The College was accredited by NAAC with institutional score of 77.45 with **'B^{+}' grade** in 2004 and reaccredited with **'B^{+}'** grade with institutional CGPA of **2.67** in 2016. The College offers B.A., B.Sc., and B.Com. Programmes. The college also runs three distance learning centres of open universities viz, Maulana Azad National Urdu University, Hyderabad, Yashwantrao

Chavan Maharashtra Open University B.A Marathi medium and Yashwantrao Chavan Maharashtra Open University B.A Urdu medium.

WHEREAS:

Pathri Taluka Shikshan Prasarak Mandal's, **Katruwar Arts, Ratanlal Kabra Science and B. R. Mantri Commerce College Manwath, Dist. Parbhani** was established in 1972.

Since that time, the college has been at the forefront to formulate an academic leadership. Even though it's a rural college, has already completed three rounds of NAAC Accreditation in the year 2004, 2012 and 2018 with 2.65 and 2.28 CGPA cumulating B Grade in these three cycles. We have ISO certification in the year 2017. Apart from receiving Best Examination Centre Award twice; the college was awarded with The Best College Award from the parent university in the year 2010. The College annual magazine 'Manwata' has set a record by winning state and university level prizes for many a time in the nearest past. The sport department of our college has been adding feathers to our glory in terms of organizing university and national level competitions, participation and medals in national and international level competitions and facilitating our students with an indoor stadium and running track to develop sport culture.The students and faculties have been involved in different research -oriented activities to enhance their research perceptions. We also believe in the matter of fact that a college should be well connected with the region it represents. Therefore, we have been striving to formulate a bond of concern with the nearby villages through different NSS activities. At present, we have 1100 student strength from three degree courses and one PG course i.e.M.Com. We have started one certificate course in Communication Skills from the present academic year to enhance language competence of our students. We are planning to initiate P.G. courses in the subjects such as Chemistry, History and Mathematics along with a few certificate courses from forth-coming academic year. Being a rural institute, there are multiple barriers but still we believe in the fact that quality enhancement has no such barriers at all..

BOTH THE COLLEGES WISH TO HAVE COLLABORATION FOR FOLLOWING SERVICES:

1. Services:

- Sharing and mobilization of resources, infrastructure and utilization of the expertise from the departments of college.
- Core research through projects under guidance of experts with faculty and students exchange programs sharing the knowledge bank.
- Collaborative extension programs focusing community services abiding the guidelines of Government of India and Maharashtra state Government.
- Skill development programs strengthening the interdepartmental interactions to promote the faculty improvement and student placements.
- **Faculty Exchange:** A faculty from both colleges will be exchanged for the period of a week per semester with the mutual consent the faculty and dates.
- Travelling expenses for the faculty will be borne by concerned colleges.
- Accommodation to the faculty will be provided by the host colleges.
- Financial liabilities if any will be borne respective college for their staff and students.

2. Terms:

Both colleges shall perform the services, the period as may be subsequently agreed by the colleges in written form initially for the period of 5 Years.

3. Project Administration:

The client designates **Dr. E. U. Masumdar, Principal, Azad Mahavidyalaya, Ausa** and **Prof. Dr. Bhaskar S. Munde, Principal, Katruwar Arts, Ratanlal Kabra Science and B. R. Mantri Commerce College Manwath,** will be responsible for the co-ordination of activities under the contract, for acceptance and approval of the reports and of other deliverables.

4. Performance:

Both the colleges undertake to perform the services with the highest standards of professional and ethical competence and integrity.

5. Law Governing Contract and Language:

Both the colleges shall be governed by the law of Union of India and the language of the contract shall be English/ Hindi.

6. Dispute Resolution:

Any dispute arising out of contract, which cannot be amicably settled between the colleges, shall be referred to adjudication/ arbitration in accordance with the laws of country.

Authorized Signatory:

Principal , Azad Mahavidyalaya,
Ausa, Tq. Ausa, Dist. Latur
Pin- 413520

Sign: 30/1/21

Name: Dr. E.U. Masumdar

Principal

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Seal

Date: 30-01-2021

Witness

Authorized Signatory:

Katruwar Arts, Ratanlal Kabra
Science and B. R. Mantri Commerce
College Manwath Dist. Parbhani
Pin - 431505

Sign: 30.1.21.

Name: Dr. Bhaskar S. Munde

Principal

PRINCIPAL
Katruwar Arts R. Kabra Science
& B. R. Mantri Commerce College
MANWATH, Dist. PARBHANI

Seal

Date: 30-01-2021

Witness

Dr. M. A. Barote

NAAC/IQAC Coordinator

Dr. K. G. Huge

NAAC/IQAC Coordinator

" तमसो मा ज्योतिर्गमय "

बालाघाट शिक्षण संस्था नळदुर्ग संचलित,

यशवंतराव चव्हाण महाविद्यालय

तुळजापूर, जि. उस्मानाबाद

www.ycmtuljapur.org / yccollege@gmail.com

प्राचार्य : डॉ. बाबरे एम. जी.

जा.क्र. : यचमतु/ 2019-20/ 2918 दि. 10-10-2019

Memorandum of understanding

This memorandum of understanding (MoU) is signed between

Department of Physics and Electronics,
Yeshwantrao Chavan Mahavidyalaya, Tuljapur, Dist-Osmanabad-413601
and
Department of Physics and Electronics,
Azad Mahavidyalaya, Ausa, Dist-Latur-413520

for working in association with each other under faculty exchange programme, therefore it is agreed to conduct the guest lectures by both faculty of both colleges for the students of both colleges. Both the colleges will provide infrastructure and human resources whenever needed for the said activity.

This Memorandum of Understanding is active for the duration from October 2019 to October 2024.

Hence signed.

Head
Department of Electronics
Yeshwantrao Chavan
Mahavidyalaya, Tuljapur

Head
Department of Physics
Yeshwantrao Chavan
Mahavidyalaya, Tuljapur

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Principal
Yeshwantrao Chavan Mahavidyalay,
Tuljapur

Balaghat Shikshan Sanstha's, Estd : 1971

Arts, Science & Commerce College, Naldurg

Tq. Tuljapur, Dist. Osmanabad - 413602
(Junior, Senior & Post Graduation)

Prin. Dr. S. L. Korekar
(M.Sc.,Ph. D.)

Phone : (O) 02471 - 246042, @ 02471 - 242491,
Fax : 02471 - 246042, Mobile : 9422749552
E-mail : asccollegenaldurg@gmail.com,
www.ascnaldurg.com

Ref. ASCN .....
Date : 7 / 10 /2019

Memorandum of Understanding

Between

Department of Physics

Arts, Science & Commerce College Naldurg Dist. Osmanabad-413602

And

Department of Physics & Electronics Azad Mahavidyalaya, Ausa, Dist-Latur413520

1. Parties. This memorandaum of understanding (hereinafter referred to as "MOU") is made and entered in to by and between **Department of Physics, Arts, Science & Commerce College Naldurg Dist. Osmanabad-413602** And **Department of Physics & Electronics, Azad Mahavidyalaya, Ausa, Dist-Latur 413520.**

2. Purpose. The purpose of this MOU is to

i) Undertake faculty exchange programme to conduct guest lecture

ii) Undertake students exchange programme to being about overall development of students

iii) To provide infrastructure and human resources whenever needed for the said activity

iv)To carry out any other academic and research oriented activity

3. Terms of MOU. This MOU effective upon the day and date last signed and executed by the duly authorized representatives of the parties to this MOU. This MOU may be terminated, without cause, either party upon one month return notice which shall be delivered by hand or by certify mail to the address listed above.

Arts, Science & Commerce College Naldurg
Dist. Osmanabad-413602

Head
Department of Physics
A.S.C. College Naldurg 413602

PRINCIPAL
Arts, Science & Commerce
College Naldurg
Dist. Osmanbad
Pin - 413 602

Department of Physics Azad Mahavidyalaya,
Ausa, Dist- Latur413520

Head of Department Principal

Date: 7 / 10 / 2019

MEMORANDUM OF UNDERSTANDING

(Under Industry-Academia Initiatives)

Between

Hindustani Education Society's

Azad Mahavidyalaya, Ausa

and

SUN & OCEAN

Sun and Ocean Agro Pvt. Ltd.

BJD Udyog Nagar,Sr. No. 72, Mangrul Tuljapur
Dist. Osmanabad

MEMORANDUM OF UNDERSTANDING

(Under Industry-Academia Initiatives)

This Memorandum of Understanding has been signed between Hindustani Education society's, Azad Mahavidyalaya. Ausa- 413520, Dist Latur, Maharashtra and Sun and Ocean Agro Pvt. Ltd.BJD Udyog Nagar,Sr. No. 72, Mangrul, TuljapurDist. Osmanabad on 06 October, 2021.

WHEREAS:

Hindustani Education society's, Azad Mahavidyalaya,Ausa- 413520, Dist Latur, Maharashtra dedicated to the cause of higher education for rural and Minority students. The College is recognized by the UGC under section 2 (f) and 12 (B). The College was accredited by NAAC with institutional score of 77.45 with 'B+' grade in 2004 and reaccredited with 'B+' grade with institutional CGPA of 2.67 in 2016. The College offers B.A., B.Sc., and B.Com. Programmes. The college also runs three distance learning centres of open universities viz, Maulana Azad National Urdu University, Hyderabad, YashwantraoChavan Maharashtra Open University B.A Marathi medium and YashwantraoChavan Maharashtra Open University B.A Urdu medium. College has recently acquired ISO 9001: 2015 Certification .

WHEREAS:

Sun & Ocean Group is India's one of the fast growing group. It is established in the year 1994 aiming to give employment to the youths of rural area and give quality products to Indian farmers. Sun & Ocean began its contribution to Indian Farming by taking modern technology to the farmers. Company's farm inputs business activity offers a wide variety of products and services that covers almost every aspect of agriculture. These include manufacturing of Insecticides, Fungicides, Weedicides, Biopesticides, Biofertilizers, Micronutrients, 100% Water Soluble Fertilizers and Bio & Organic Fertilizer.

The backbone of Sun & Ocean's business is an extensive distribution network of more than 1000 outlets all over India. This enables it to reach its products and services to farmers even in the remote corner of India. The network is serviced by qualified personnel who offer farmers on the field advice. Over the years group commitment to quality has won the trust of the farmers. Realizing the need for superior technological capabilities and continued support to the farmers, Company has set up a well-equipped, modern Agri-technology Research Laboratory.

Company enjoys international renown for the standard of its services, based on its vast experience and its commitment to quality and excellence. Our group has received an ISO 9001-2000 for quality & ISO 14001 for environmental safety management. The global attitude to the pest control is changing rapidly preventing pest resistance, safety to users, environment and beneficials are the key issues in the development of pest control today. Sun & Ocean intend to play a role in this global movement towards eco-friendly Biopesticides and Biofertilizers. In addition to expanding its own research and development, company is working in close collaboration with known companies across the world.

Relationship

This MOU relates solely to the intention of the parties, wherein **Azad Mahavidyalaya, Ausa** and **Sun and Ocean Agro Pvt. Ltd.** jointly work together and shall not extend to any other activity or create a partnership between the Parties hereto and under any law of any country. The parties agree that it is not their intention to share any loss or profit between them in their respective fields, except to the extent expressly provided herein.

Authority to Bind

No party shall act on behalf of the other party to contractually bind the other Party under the terms of this MOU having first obtained the other Party's written agreement.

PURPOSE OF MOU

The purpose of MoU is **to have mutual intentions to jointly work on projects required for industries and research needs**, with learned faculty of good industrial experience and promising students, jointly agree to exchange their expertise for mutual benefit and growth, on the areas specified below: Industrial Visits.

SCOPE OF THEAGREEMENT

Azad Mahavidyalaya, Ausa and **Sun and Ocean Agro Pvt. Ltd.** may offer opportunities to the other for activities and programs, such as guest lecture, training of students, and industrial visits that will foster a collaborative relationship.

Specific Activities: Specific activities and programs implemented under the authority of this MoU and as decided from time to time on the topics of mutual interest of **Azad Mahavidyalaya, Ausa** and **Sun and Ocean Agro Pvt. Ltd** shall be subject to availability of funds and the approval of each institution's authorized representatives. The institutions contemplate implementation of programs or activities such as:

(a)joint educational and training activities.

(b)exchange of expertise, graduate, postgraduate students for lectures, and discussions.

(c)exchange of academic materials and other information; and

(d)special, short- term training programs.

(e) industrial visits for students.

In witness whereof the Parties have caused this Agreement to be executed by their duly authorized representatives on this 6th Day of October 2021 for a period of five years.

Authorized Signatory:

Principal , Azad Mahavidyalaya,
Ausa, Tq. Ausa, Dist. Latur
Pin- 413520

Sign:

Name: Dr. E.U. Masumdar

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Designation/Seal

Date: 06-10-2021

Witness

Dr. M. A. Barote

NAAC/IQAC Coordinator

Coordinator
NAAC
Azad Mahavidyalaya, Ausa

Authorized Signatory:

Sun and Ocean Agro Pvt. Ltd.BJD Udyog Nagar,Sr. No. 72, Mangrul TuljapurDist. Osmanabad

Sign:

Name: Mr. K. B. Kisve (Factory Manager)

Sun & Ocean Agro(India)Pvt. Ltd
Manager

Designation /Seal

Date: 06-10-2021

Witness

Prof Ingale B.D

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar Ujani Road, Ausa, Dist. Latur-413520

Academic Year:2019-2020& 2020-21

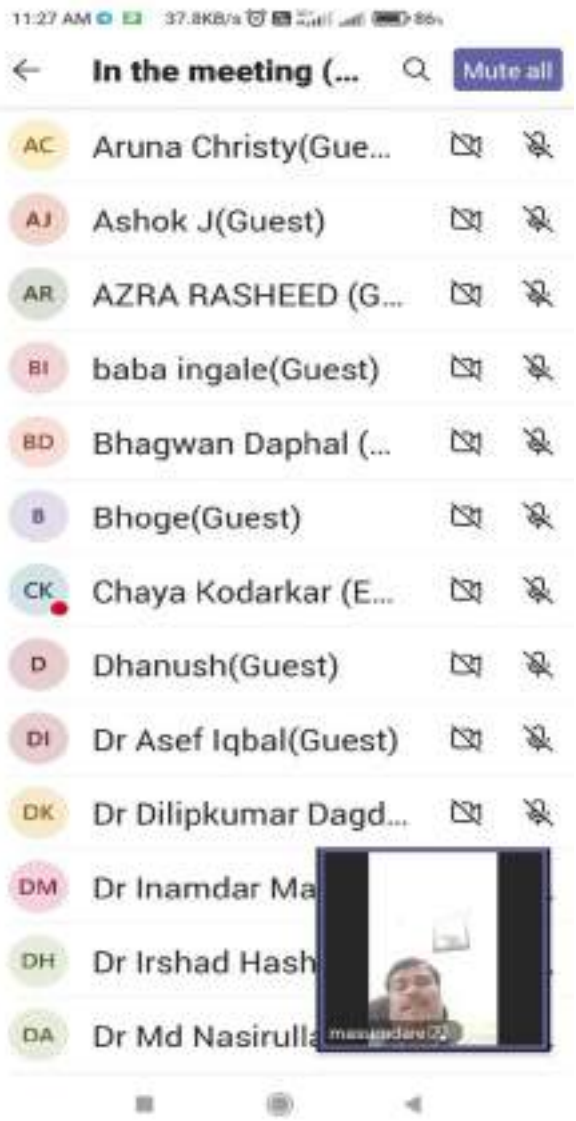
Functional MoUs

3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years (10)

SR	Name of the institution/ industry/ corporate house with whom MoU is signed	Year of signing MoU	Duration	List of the actual activities under each MOU and web -links year-wise
1	Arts, Science & Commerce College, Naldurg.	07-10-2019	05 years	Guest lectures, faculty exchange & student exchange, **Research Activity , One Day National Symposium on Research Paper Writing and Its Publication (jointly organised)**
2	Sanjeevani Mahavidyalaya, Chapoli.	10-07-2020	05 years	National Level E-Workshop on Online AQAR Maharashtra MahavidyalayaNilanga and SanjivaniMahavidyalayaChapoli(jointly organised)
3	Rajarshi Shahu Mahavidyalaya Latur	04-12-2020	05 years	In One Day State Level Development of Online Teaching Material Prof. A.K. Shaikh, Department of Computer Science Rajarshi Shahu College Latur was resource person In One Day National Webinar on ZOOM as an Online Teaching Platform Dr. Abhijit Yadav HOD Physics Rajarshi Shahu Mahavidyalaya, Latur was resource person Guest lecture on Nanotechnology by Dr. Abhijit Yadav HOD Physics Rajarshi Shahu Mahavidyalaya, Latur. Guest lectures, Resource persons
4	Maharashtra Mahavidyalaya, Nilanga	10-12-2020	05 years	National Level E-Workshop on Online AQAR Maharashtra Mahavidyalaya Nilanga and Sanjivani Mahavidyalaya Chapoli (jointly organised One Day Multidisciplinary Online International E-Conference on Impact of Environment on Agriculture, Health, Water Resources, Social Life and Industrial Development, Competitive exam workshop, Resource persons
5	Shivaji Mahavidyalaya,Barshi	01-01-2021	05 years	In National Level E-Workshop on Online AQAR Dr.P. R. Thorat, Principal Shivaji College, Barshi delivered his keynote address. Dr. S.D Pawar, IQAC Coordinator, Shivaji College Barshi was one of the resource persons.

Functional MoU with
Arts, Science and Commerce College, Naldurg.


Symposium on Re...
13:18 56 attendees
Amruta Doegre
Suryawanshi Rangrao Vasant...
baba ingale
Prof Mahendra Shirsat (Guest)
Magdum Sidre
PK
DM
SP
MB
PAWAN KAC...
Dr. Fulmante ...
shagufta par...


In the meeting (...
Mute all
AC Aruna Christy(Gue...
AJ Ashok J(Guest)
AR AZRA RASHEED (G...
BI baba ingale(Guest)
BD Bhagwan Daphal (...
B Bhoge(Guest)
CK Chaya Kodarkar (E...
D Dhanush(Guest)
DI Dr Asef Iqbal(Guest)
DK Dr Dilipkumar Dagd...
DM Dr Inamdar Ma
DH Dr Irshad Hash
DA Dr Md Nasirulla

रिसर्च पेपर रायटिंग ॲन्ड इट्स पब्लिकेशन विषयावर राष्ट्रीय परिसंवाद

नळदुर्ग : आझाद महाविद्यालय औसा व आर्ट्स, सायन्स व कॉमर्स कॉलेज, नळदुर्ग यांच्या संयुक्त विद्यमाने भौतिकशास्त्र व इलेक्ट्रॉनिक्स विभागातर्फे रिसर्च पेपर रायटिंग अँड इट्स पब्लिकेशन या विषयावर एक दिवसीय राष्ट्रीय परिसंवाद आयोजित करण्यात आले. या कार्यक्रमासाठी डॉ.ए.एन. शेख हे उपस्थित होते. कार्यक्रमाचे अध्यक्ष डॉ. इ.यू. मासूमदार प्राचार्य , आझाद महाविद्यालय औसा हे होते तर को-ऑर्गनायझर म्हणून प्राचार्य डॉ. एस.एल. कोरेकर सर उपस्थित होते. कार्यक्रमासाठी मुख्य वक्ता म्हणून डॉ. एम.डी. शिरसाट व रिसोर्स पर्सन म्हणून मुंबई विद्यापीठाच्या बायो- फिजिक्स विभागाचे विभाग प्रमुख डॉ.पी.एम. डोंगरे हे उपस्थित होते.प्राचार्य डॉ. मासुमदार सरांनी यांनी आपल्या स्वागतपर भाषणात संशोधनाचे महत्व विशद करून महाविद्यालयाच्या प्रगतीचा आढावा घेतला. संशोधनावरील पेपर लिहिण्याची पद्धत, जर्नलची निवड व साहित्य चोरी याबद्दल मार्गदर्शन डॉ.एम.डी. शिरसाट यांनी केले. तसेच डॉ. पी.एम. डोंगरे यांनी संशोधनाशी निगडित मार्गदर्शन केले.कार्यक्रमाचे प्रास्ताविक डॉ.एम.ए.बरोटे यांनी केले तर सूत्रसंचालन प्रा.बी. डी इंगळे यांनी केले. पाहुण्यांचा परिचय डॉ.आर. व्हि. सूर्यवंशी व प्रा.एम.बी. झाडे यांनी करून दिला. डॉ. आर. एम. महिंद्रकर यांनी कार्यक्रमाचे आभार मानले. उपप्राचार्य प्रा.टी.जहागीरदार, प्रा. जी.डी .टिंगरे व डॉ. एन के.सय्यद यांनी कार्यक्रमासाठी प्रयत्न केले. महाराष्ट्रासहबाहेरील बहुसंख्य प्राध्यापक व विद्यार्थी ऑनलाईन पद्धतीने उपस्थित होते.

Students' exchange

Faculty exchange & guest lecture

Student exchange programme between Azad College Ausa &Arts, Science and Commerce College, Naldurg.

Phone & Fax : (02383) 220093

Hindustani Education Society's, Ausa.

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar, Near Power House, Ausa - 413 520 Dist. Latur (M. S.)

U.G.C. Approved u/s 2(f) & 12 (B)

NAAC Accredited B+ Grade

Ref. No. : AMA/MOU/2019-2020/1125-1

Date : 30/11/2019

Memorandum of Understanding

This Memorandum of Understanding (MoU) is signed between

Department of Physics and Electronics,

Azad Mahavidyalaya, Ausa, Dist. Latur-413520

And

Department of Physics,

Arts, Science and Commerce college Naldurg, Tq. Tuljapur, Dist. Osmanabad-

For working in association with each other under faculty exchange programme, therefore, it is agreed to conduct the guest lectures by both faculty of both colleges for the students of both colleges. Both the colleges will provide infrastructural and human resources wherever needed for the said activity.

This Memorandum of Understanding is active for the duration from October, 2019 to October, 2024

Hence signed

Department of Electronics
Azad College Ausa Dist. Latur

Dr. M. A. Barote
Head, Dept. of Physics
Azad Mahavidyalaya, Ausa

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Our Site : WWW.hesausa.org

E-mail : azadausa@yahoo.com

Phone & Fax : (02383) 220093

Hindustani Education Society's, Ausa.

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar, Near Power House, Ausa - 413 520 Dist. Latur (M. S.)

U.G.C. Approved u/s 2(f) & 12 (B)

NAAC Accredited B+ Grade

Ref. No. : AMA/ 1023 /2019-2020

Date : 10 / 02 / 2020

To,

The Principal,

Arts, Science and Commerce College,

Naldurg, Tq Tuljapur

Dist.Osmanabad.

Sub- Visit of Students to the Laboratory under Student Exchange programme in accordance with MOU on dated **14/02/2020**.

Respected Sir,

As a part of student exchange programme under MOU signed with the department of physics of your college, the student from the department of Physics and Electronics of our college are visiting your college on **14/02/2020** with an intention to give exposure to the exceptional facilities available in your laboratory of Physics.

Please allow them to visit and have interaction with your facilities as well.

Thanking you.

Received

10/02/2020

Head

Department of Physics

A. S. C. College Naldurg-413602

Principal

Azad Mahavidyalaya

Ausa Dist. Latur

Our Site : WWW.hesausa.org

E-mail : azadausa@yahoo.com

Balaghat Shikshan Sanstha, Naldurg's

Arts, Science and Commerce College, Naldurg

Dist. Osmanabad (Maharashtra)

Internal Quality Assurance Cell

Co-ordinator : Dr. Manoj C. Zade (9421356857)

Chairman Prin. Dr. S.S.Shinde (9422655257)

Date : 14/02/2020

Attendance of

Sr. No.	Name of Student	Class	Signature
1)	Pradip Dharmraj Gaikwad	B.Sc III	Pradip
2)	Kore Vaibhav Shivram	B.Sc III	Vaibhav
3)	Guddle Mahesh Mahalappa	B.Sc III	Guddle
4)	Shirse Shyam Bhuspar	B.Sc III	Shirse
5)	Chavan Amol Shivaji	B.Sc III	Chavan
6)	Rathod Sagar Narayan	B.Sc III	Sagar
7)	Gire Siddhi Dhananjay	-11-	Siddhi
8)	Kamble Mayavati Maruti	-11-	Maya
9)	Swami Pooja Iraayya	B.Sc III	Pooja
10)	Malde Sujata Bhu	B.Sc III	Sujata
11)	Salunke Aishwarya Gopinath	B.Sc III	Aishwarya
12)	Kazi Seema Sirajoddin	B.Sc III 184	Seema
13)	Kazi Nishad A. Gafar	B.Sc III 156	Nishad
14)	Syed Ayesha Afrin Asif	B.Sc III	Ayesha
15)	Sayyed Tahiyya M. Gouse	B.Sc III	Tahiyya
16)	Jadhav Reshma Subhash	-11-	Reshma
17)	Waghmare Rutuja Narayan	-11-	Rutuja
18)	Sayyed Tahesin Gouse	B.Sc I	Tahesin
19)	Patel Afreen Shafi	-11-	Afreen

Balaghat Shikshan Sanstha, Naldurg's

Arts, Science and Commerce College, Naldurg

Dist. Osmanabad (Maharashtra)

Internal Quality Assurance Cell

Co-ordinator : Dr. Manoj C. Zade (9421356857)

Chairman Prin. Dr. S.S.Shinde (9422655257)

Date : 14/02/2020

Attendance of

Sr. No.	Name of Student	Class	Signature
20)	Kashid shruti ~~Kashid~~ Deepak	BSc I st	Shruti
21)	Pawar shital Satish	BSc II nd	Shital
22)	Patil Vpasna Vdhav	BSc II nd	Vpasna
23)	Kalshetti Mamta Aananda	BSc II nd	Mamta
24)	Nalvade Vaishnavi Santosh	BSc II nd	Vaishnavi
25)	Bansode Sakshi Appanna	BSc II nd	Sakshi
26)	Atisha Satish Jadhav	BSc I st	Atisha
27)	Sanjana Shekhar Patil	BSc I st	Sanjana.
28)	waghmare Jyoti Hanmant	B.Sc I	Jyoti
29)	Kayale Asmita Anil	M	Asmita
30)	Bansode minakshi Appanna	M	Minakshi
31)	Halali pamini Tukaram	M	Pamini

Balaghat Shikshan Sanstha,Naldurg's

Estd. 1971

Arts, Science and Commerce Collage, Naldurg

Tq.Tuljapur, Dist.Osmanabad - 413602

Permanantly affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

Principal : **Dr. Sanjay Korekar** (M.Sc.Ph.D)

(Junior, Senior & Post Graduation)

NAAC - Grade - B

Phone (O) 02471-246042
Mob - 9422749552
Email : ascnaldurg@gmail.com
Website - www.ascnaldurg.com

Ref. 2020-21/080

Date 31/01/2020

To,

The Principal,

Azad Mahavidyalaya,

Ausa. -

Sub : Visit of Students to the Laboratory under Student Exchange programme in accordance with MOU

Respected Sir,

As a part of student exchange programme under MOU signed with the department of physics of your college, the students from the department of Physics of our college are visiting your college on 01/02/2020 with an intention to give exposure to the exceptional facilities available in your laboratory of Physics & Electronics.

Please allow them to visit and have interaction with your faculties as well.

Thank You.

PRINCIPAL
Arts, Science & Commerce
College Naldurg
Dist. Osmanbad
Pin - 413 602

Principal

Balaghat Shikshan Sanstha,Naldurg's Estd. 1971

Arts, Science and Commerce Collage, Naldurg

Tq.Tuljapur, Dist.Osmanabad - 413602
Permanantly affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
Principal : **Dr. Sanjay Korekar** (M.Sc.Ph.D) (Junior, Senior & Post Graduation)
NAAC - Grade - B
Phone : (O) 02471-246042
Mob - 9422749552
Email : ascollegenaldurg@gmail.com
Website : www.ascollegenaldurg.com

Ref. /2020-21/080 Date :31/01/2020

To,

The Principal,

Azad Mahavidyalaya,

Ausa. -

Sub : Visit of Students to the Laboratory under Student Exchange programme in accordance with MOU

Respected Sir,

As a part of student exchange programme under MOU signed with the department of physics of your college, the students from the department of Physics of our college are visiting your college on 01/02/2020 with an intention to give exposure to the exceptional facilities available in your laboratory of Physics & Electronics.

Please allow them to visit and have interaction with your faculties as well.

Thank You.

PRINCIPAL
Arts, Science & Commerce
College Naldurg
Dist. Osmanbad
Pin - 413 602

Principal

Reg.No. OSM/36/78 F 312 L

Hindustani Education Society's

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar, Ausa Tq.Ausa Dist.Latur

Affiliated To S.R.T.M.University Nanded, NAAC accredited 'B+'

नोंदणी क्र.OSM/36/78 F 312 L

हिन्दुस्थानी एज्युकेशन सोसायटीचे

आझाद महाविद्यालय, औसा

अफसर नगर, औसा ता.औसा जि.लातूर

जा.क्र. AMA/phy. muu/02/2020

दिनांक. 1/02/2020

To,

Dr. S. S. Shinde,

Department of Physics,

Arts, Science and Commerce College,

Naldurg, Dist. Osmanabad

Subject : **Letter of Appreciation**

Sir,

Our Department of Physics & Electronics has organized a series of guest lecture for the students of under graduate. As a part of this lecture series, you have been invited to share your valuable thoughts and views on the topic **Transistor Manufacturaring and Mechanism** on date **01/02/2020.**

We are happy to inform you that our students have enjoued your thoughts provoking lecture. We hope to get your kind co-operation in future also.

Thanking you

Received
1/02/2020

O/C

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

G:\Desktop\ACADEMIC\

फोन नं.02383- 220093,220276 फॅक्स नं.02383- 220093 इमेल.azadausa@yahoo.com.

List of students from A.S.C. college Naldurg.

List of B.Sc-IIIrd Year Students Visited to Dept. Of Physics & Electronics,Azad College Ausa on 01/02/2020 as part of MOU.

Sr. No.	Name Of the Student	Class	Sign
1	Ku.Gire Siddhi Dhananjay	B.Sc-III	
2	Shitre Shyam Bhaskar	B.Sc-III	
3	Jadhav Pradip Dharmraj	B.Sc-III	
4	Ku.Katte Aarti Rajendra	B.Sc-III	
5	Ku.Halde Sujata Biru	B.Sc-III	
6	Ku.Swami Pooja Irayya	B.Sc-III	
7	Ku.Jadhav Reshma subhash	B.Sc-III	
8	Chavan Kiran Tukaram	B.Sc-III	
9	Gudde Mahesh Mahalappa	B.Sc-III	
10	Rathod Sagar Narayan	B.Sc-III	
11	Chavan Amol Shivaji	B.Sc-III	
12	Surwase Ishwar Dattatray	B.Sc-III	

Department of Electronics
Azad College Ausa Dist. Latur


Dept of Physics


Dept of Physics


Latitude: 17.818559
Longitude: 76.257733
Accuracy: 24.6m
Time: 14-02-2020 12:55
Note: visit under mou Arad


MOU with

Guest Lecture
Importance of Practicals in Science
Ujjain
Maharashtra
India
26°C
79°F

Guest Lecture
on

Guest Lecture
on
Importance of Practicals in Scien
BY

Guest Lecture
on

Structural Study of Zirconium (Zr^{4+}) doped Nickel-Zinc Ferrite.

R. M. Mahindrakar[1], B.U. Patil[2], R. V. Suryawanshi[3]

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***Abstract* — In this paper ,the synthesis and structural properties of Zirconium doped Nickel Zinc ferrite prepared by sol-gel auto combustion technique have been reported. The products of the system were produced by keeping metal nitrate to citrate ratio 1:3 and adding Ammonia maintaining PH at 7. All the samples were heated at 650° for 7 hours. The X-ray diffraction patterns of all the samples are recorded at room temperature. All the Planes are allowed and planes which confirm the formation of single phase cubic spinel structure of $Ni_{0.7-x}Zn_{0.3}Zr_xfe_{2-2x}O_4$. The particle size was calculated using Debye-Scherer's formula using XRD data.**

Key Words: Nickel Zinc Ferrite, Sol-gel, XRD.

I INTRODUCTION

Ferrites are the ferrimagnetic metal oxide materials which possesses the combined properties of magnetic conductor and electrical insulator. They have been comprehensively investigated and being is subject of great interest of their importance in many technological applications such as antenna rods, transformer cores, magnetic data storage, sensors, actuators , catalyst etc. [1, 2]. These electrical and magnetic properties are affected by the type of substituent, microstructure, chemical composition, synthesis methods and synthesis parameters [3, 4, 5].

Spinel ferrites are compounds of iron oxides and some transition metal oxides and their exhibit important electrical and magnetic properties which made them extensively useful in technological and industrial applications such as magnetic storage in microwave devices [6, 7]. Nickel Zinc ferrites are of soft magnetic material. Such type of material are used in filters, deflection yoke, radar observer, antennas, broadband transformers, inductors and also used in noise filters as well as recording heads due to their excellent properties such as high initial permeability and high saturation magnetization [8].

Various substituent of magnetic and nonmagnetic nature like Co,Zn, Al etc. have been incorporated in Nickel ferrite to modify their properties. However to our knowledge

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Research paper of Dr. R.V. Suryawanshi HOD Electronics, Azad Mahavidyalaya, Ausa withDr. R. M. Mahindrakar HOD Physics, A. S. C. College, Naldurg.

IMPACT OF THE COVID-19 PANDEMIC ON EDUCATION

R. V. Suryawanshi[a], R. M. Mahindrakar[b] and G. D. Tingare[a],

[a]Department of Electronics, Azad Mahavidyalaya Ausa, Ta. Ausa, Dist. Latur, M.S. India

[b]Department of Physics, Arts, Science and Commerce College Naldurg, Ta. Tuljapur, Dist. Osmanabad, M. S., India

Abstract: *The COVID-19 pandemic has affected instructional systems over bout world, resulting in the closings of faculties, universities and faculties. Governments determined to provisionally shut instructional establishments in an endeavor to scale back the unfold of COVID-19. Several countries presently implementing wide closures and are implementing native closures, impacting nearly fourty seven percent of the world's student population.College closures impact not onlyon students, teachers, and families but have widespread economic and social consequences. College closures in response to the pandemic have affect on social and economic problems, as well as student debt, digital learning, food insecurity, and impoverishment, yet as access to service, health care, and housing, internet, and incapacity services. The impact was additional severe for deprived kids and their families, manufacturing interrupted learning, compromised nutrition, service issues, and eventful economic value to families. Efforts to slow the unfold of COVID-19 through non-pharmaceutical interferences and defensive measures like social-distancing and self-isolation have sponsored the wide unfold nearer of primary, secondary, and tertiary schooling. Mathematical demonstrating has shown that transmission of a pandemic could also be postponed by closing faculties. Influence depends on the contacts kids maintain outside of family. College closures appear effective in decreasing cases and deaths, particularly once recognized duly. If college closures occur late virtual to a pandemic, they're less effective and should not have any impact in the least. The reopening of schools and colleges once a amount of closure has resulted in enlarged infection rates. As closings tend to occur at the same time with different interventions like public gathering bans, it will be troublesome to live the precise impact of school, college closings.*

Key Words: *instructional systems, college closures, interrupted learning, incapacity services, Interventions.*

1. Introduction

As of twelve January 2021, or so 825 million learners affected due to college closures in response to the pandemic. As per United Nations International Children's Emergency Fund watching, twenty three countries presently implementing nationwide closures and forty measure implementing native closures. One hundred twelve countries' schools presently open(1-5),college closures within the town of Japan etc. were found to possess with success ablated variety of infected students at the height of infection; but closing colleges wasn't found to possess considerably ablated the entire number of infected students(6). Obligatory college closures and different social distancing measures were related to a twenty ninth to thirty seventh reduction in grippe transmission rates (7). Once there's lowest to moderate community transmission, social distancing methods will be enforced like suspending or cancelling journeys, assemblies, and different huge gatherings like education or choir categories or meals in an exceedingly restaurant, increasing the house between desks, staggering arrival and dismissal times, limiting nonessential guests, and employing a separate health workplace location for youngsters with flu-like symptoms. Once there's substantial transmission within the area people, additionally to social distancing methods, extended college dismissals could also be thought-about (8). Methods i.e. of rotating schedules, feeding lunch within the schoolroom, and utilizing outside places are some ways that to attenuate shut contact. The precautions of face masks, hand sanitizer stations, rearranging school rooms to help physical distancing, and frequent cleanup. Younger kidsare at higher risk of sorrow from long educational significances and organic process insufficiencies while not in-person learning. Instructional establishments revolved to

Research paper of Dr. R. V. Suryawanshi HOD Electronics, Azad Mahavidyalaya, Ausa with Dr. R. M. Mahindrakar HOD Physics, A. S. C. College, Naldurg.

Functional MoU with
Sanjeewani Mahavidyalaya, Chapoli.

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar Ujani Road, Ausa, Dist. Latur-413520

Academic Year: - 2020-2021

Azad Mahavidyalaya, Ausa.
Maharashtra Mahavidyalaya Nilanga.
and
SanjeevaniMahavidyalaya, Chapoli.
Jointly organized

National Level E-Workshop
on
Online AQAR

INDEX

BROUCHER

BANNER

Screenshots of the E-Workshop on Online AQAR

Dr. Vijay Joshi chief consultant of RUSA Maharashtra is seen addressing

Dr Dhanaji Arya IQAC Coordinator, SRT College Ambejogai is seen addressing

E-Certificates issued to the participants

Hindustani Education Society's

AZAD MAHAVIDYALAYA, AUSA.

NAAC Accredited B+ Grade with 2.67 CGPA

CERTIFICATE OF PARTICIPATION

This certificate is presented to Sampale Jyoti Digambar

of Havagiswami College, Udgir

in recognition for active participation in One Day National Level e-Workshop on 'Online AQAR' organised by Internal Quality Assurance Cell, Azad Mahavidyalaya, Ausa on 18 January 2021.

Dr. N. K. Syed
IQAC Co-ordinator
Organising Secretary

Dr. M. A. Barote
NAAC Co-ordinator
Convenor

Prof. T. A. Jahagirdar
Vice-Principal
Co-Organiser

Dr. E. U. Masumdar
Principal

Made for free with Certify'em

News Paper Cutting

आझाद महाविद्यालयात एक्यूएआरवर आज एक दिवसीय राष्ट्रीय कार्यशाळेचे आयोजन

औसा, दि. १७ : येथील आझाद महाविद्यालय, महाराष्ट्र महाविद्यालय निलंगा व संजीवनी महाविद्यालय चापोली यांच्या संयुक्त विद्यमाने एक्यूएआर वर ऑनलाईन पध्दतीने राष्ट्रीय कार्यशाळेचे आयोजन दि.१८ रोजी आझाद महाविद्यालय येथे करण्यात आले आहे. या कार्यक्रमाच्या अध्यक्षस्थानी हिंदुस्थानी एज्युकेशन सोसायटीचे सचिव मा. डॉ.अफसर शेख साहेब हे राहणार असुन प्रमुख पाहूणे म्हणून डॉ.विजय जोशी (प्रमुख सल्लागार रुसा मुंबई) व प्राचार्य डॉ.महादेव गव्हाणे (राजर्षी शाह महाविद्यालय (स्वायत्त) लातूर) यांची उपस्थिती असणार आहे.तर प्राचार्य डॉ. पी. आर. थोरात(शिवाजी महाविद्यालय वाशी) यांचे बीज भाषण होणार आहे. तसेच मार्गदर्शक म्हणून डॉ.एस.डी पवार ,वाशी, डॉ.ए.ए यादव ,लातूर व डॉ.धनाजी आर्य, अंबाजोगाई हे मार्गदर्शन करणार आहेत. ही ऑनलाईन कार्यशाळा माय्क्रोसॉफ्ट टीम या प् च्या माध्यमातुन सकाळी ठीक ११.00 वाजता सुरु होणार आहे याचा सर्व प्राध्यापकांनी लाभ घेण्याचे आवाहन संयोजक प्राचार्य डॉ. ई. यू मासुमदार यांनी केले आहे.

राष्ट्रीय कार्टुन स्पर्धेत हासेगाव फार्मसीचे यश

AZAD MAHAVIDYALAYA, AUSA

Summary Report with Outcome

Details of National E-Workshop on online AQAR;

This one-day e-workshop was jointly organized by **Azad MahavidyalayaAusa, Maharashtra mahavidyalaya, Nilanga and SanjivaniMahavidyalayaChapoli on 18/01/2021**. It was organized online using Microsoft Teams. The E-Workshop was organized to familiarize the participants across the country with the online system of AQAR of NAAC portal. Dr. E. U. Masumdar, Principal and organizer of this E-Workshop, delivered his welcome address in which he familiarized the participants with the development of the college and the objectives of organizing the workshop. Our patron, Dr. A. N. Shaikh,the Secretary of Hindustani Education Society Ausa, presided over this E-Workshop. In his speech he expressed his views regarding the significance of NAAC. The workshop was graced by the virtual presence of **Dr. Vijay Joshi chief consultant of RUSA Maharashtra**and **Dr. Mahadev Gavhane, Principal RajarshiShahu College (Autonomous) Latur**.They delivered their lectures on the importance of AQAR regarding the assessment and accreditation from NAAC. **Dr.P. R. Thorat, Principal Shivaji College,Barshi** delivered his keynote address. All the three resource persons- **Dr. S.D Pawar, IQAC Coordinator, Shivaji College Barshi**, Dr. **Abhijit Yadav, IQAC Coordinator, RajarshiShahu College** (Autonomous) Latur, Dr. **Dhanaji Arya IQAC Coordinator, SRT College Ambejogai**tried their level best to clearall doubts of online AQAR from the minds of the participants. Prof. T. A. Jahagirdar worked as co-organizer of the E-Workshop. Dr. M.A. BaroteNAAC Coordinator performed his role as the convenor of the e-workshop and Dr. N. K. Syed, IQAC Coordinator, worked as the organizing secretary.

Outcomes of the E-Workshop on Online AQAR:

The aim of the E-Workshop was to familiarize the participants with the online Process of AQAR and the data to be uploaded to NAAC portal online. As an outcome it is found that the participants who have attended this E-Workshop are found to became familiar with online Process of AQAR and the data to be uploaded to NAAC portal online

Date: - 27/06/2021

Functional MoU with
Rajarshi Shahu Mahavidyalaya, Latur.

Principal Dr. E.U. Masumdar, Azad MahavidyalayaAusa and Principal Dr. Mahadev GavhaneRajarshiShahuMahavidyalaya, Latur are seen with signed document of MOU

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar Ujani Road, Ausa, Dist. Latur-413520

Academic Year: - 2020-2021

IQAC Organized One Day State Level

DEVELOPMENT OF ONLINE TEACHING MATERIAL

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1	Photos/Screen Shots
2	Certificate
3	Summary report with outcome

Photos of workshop

E-Certificates issued to the participant

Hindustani Education Society's

AZAD MAHAVIDYALAYA, AUSA

NAAC Accredited (II Cycle) B+ Grade with CGPA 2.67

State Level One Day Workshop on Development of Online Teaching Material

CERTIFICATE

This is to certify that

Dr. gude Durgadevi tukaram

Of Azad college ausa

Has actively participated in State Level One Day Workshop on Development of Online Teaching Material

Organized by Internal Quality Assurance Cell, Azad Mahavidyalaya, Ausa, Dist. Latur on dated 06/07/2020

Dr. M. A. Barote, Convener & HOD Physics

Dr. N. K. SYED, Co-convener, HOD English

Prof. T. A. Jahagirdar, Vice-Principal & Co. Organizer

Dr. E. U. Masumdar, Principal & Chief Organizer

AZAD MAHAVIDYALAYA, AUSA

Summary Report with Outcome

Workshop details:

This one-day state level workshop was organized by IQAC on 06/07/2020. **Prof. A.K. Shaikh, Department of Computer Science Rajarshi Shahu College Latur**was the resource person. He demonstrated on the different types of online teaching materials Dr. E. U. Masumdar, Principal and organizer of workshop delivered his presidential speech.

Outcome:

The aim of the workshop was to familiarize the participants with the different types of online teaching materials. As an outcome it is found that the participants who have attended this workshop are found to be familiar with different types of online teaching materials.

Date: - 06/07/2020

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar Ujani Road, Ausa, Dist. Latur-413520

Academic Year: - 2020-2021

IQAC Organized One Day National Webinar on

ZOOM as an Online Teaching Platform

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Photos of Webinar

Attendance


Zoom
27:51
Leave
Dr Nisar Syed
Abhijit Yadav
Dr.Alte Shashikant Mukundrao
Sham Pade
Mute
Stop Video
Share
Participants
More


Dr Nisar Syed
BAROTE MEHRAJ
Sham Pade
Dr Elahi Masumda


Dr Shafie Ladaf Ausa
Dr.Jaising Salunke
Kale Satish
DR.Govind Birajdar

E-Certificates issued to the participant

AZAD MAHAVIDYALAYA, AUSA

Summary Report with Outcome

Webinar details:

This one-day state level webinar was organized by IQAC on 27/07/2020. **Dr. Abhijit Yadav, IQAC Coordinator Rajarshi Shahu College Latur**was the resource person. He demonstrated on the different types of features of ZOOM App in online teaching. Dr. E. U. Masumdar, Principal and organizer of webinar delivered his presidential speech.

Outcome:

The aim of the webinar was to familiarize the participants with the different of features of ZOOM App in online teaching. As an outcome it is found that the participants who have attended this webinar are found to be familiar with different features of ZOOM App in online teaching. All of our teachers came across the zoom app and used it successfully in their online lectures during the Corona Pandemic.

Guest lecture on Nanotechnology by Dr. Abhijit Yadav HOD Physics Rajarshi Shahu Mahavidyalaya, Latur.

Functional MoU with
Maharashtra Mahavidyalaya, Nilanga.

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar Ujani Road, Ausa, Dist. Latur-413520

Academic Year: - 2020-2021

Maharashtra Mahavidyalaya, Nilanga,

Maharashtra College of Pharmacy, Nilanga,

And Azad MahavidyalayaAusa

Jointlyorganized

One Day Multidisciplinary Online International E-Conference on

Impact of Environment on Agriculture, Health, Water Resources, Social Life and Industrial Development

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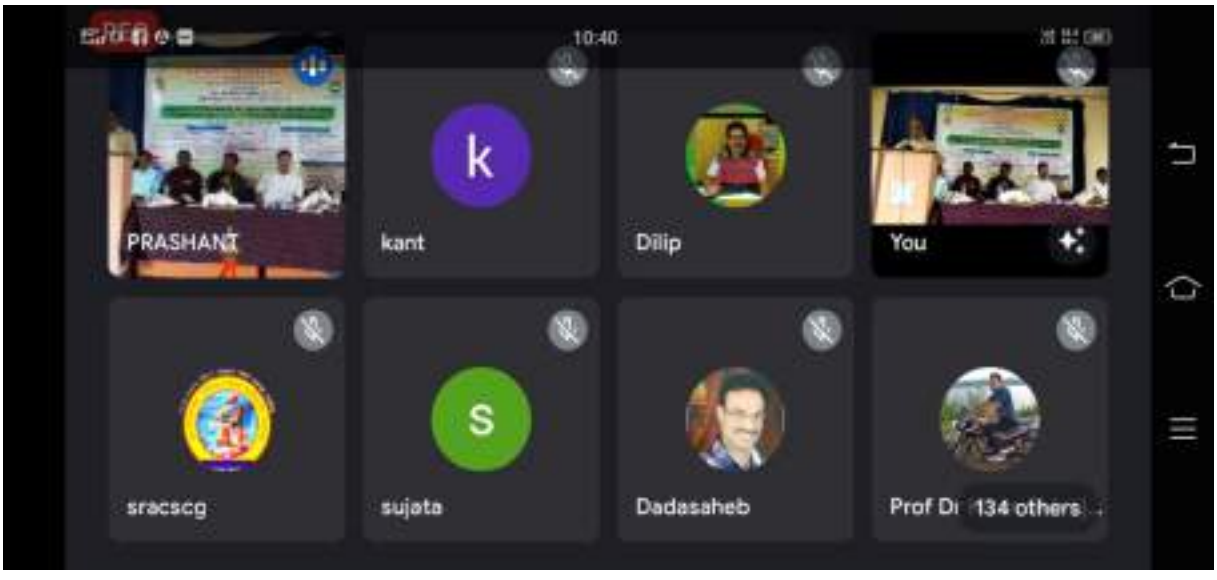
BROUCHER

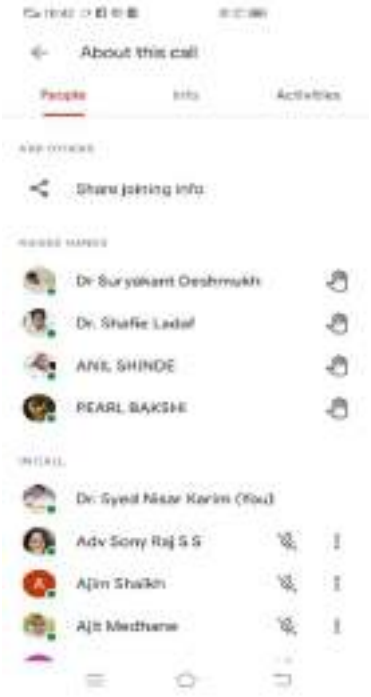

Maharashtra Shikshan Samiti's
Maharashtra Mahavidyalaya, Nilanga
Maharashtra College of Pharmacy, Nilanga
Hindustani Education Society's
Azad Mahavidyalaya, Ausa
Jointly Organized
One Day Multidisciplinary Online
INTERNATIONAL E-CONFERENCE
on
Impact of Environment on Agriculture, Health, Water, Resources, Social Life & Industrial Development
20th July 2021 Tuesday, Time: 10.00 am (IST)
Online Platform
Google Meet
Chief Patrons
Hon. Mr. Vijay Patil Nilangekar
President,
Maharashtra Shikshan Samiti, Nilanga
Hon. Mr. Afsar N. Shaikh
President,
Municipal Council, Ausa & Secretary,
Hindustani Education Society, Ausa
Key-note speaker & Chief Guest
Hon. Dr. Praveen G. Saptarshi
Visiting Professor,
Salisbury University, USA
Resource Persons
Prof. Dr. R.S. Singh
University of Delhi, Delhi
Prof. Dr. K.C. Ramotra
Shivaji University, Kolhapur
Prof. Dr. M. Maksudur Rahman
Bangladesh
Prof. Dr. Mark Y. Rogoe
Madina, Saudi Arabia
Conveners
Dr. M. N. Kolpuke
Principal
Maharashtra Mahavidyalaya, Nilanga
Dr. S. S. Patil
Principal,
Maharashtra College of Pharmacy, Nilanga
Dr. E.U. Masumdar
Principal
Azad Mahavidyalaya, Ausa
Co-Conveners
Dr. B. N. Pool
Principal
Maharashtra D Pharm. College, Nilanga
Dr. C.J. Kadam
Vice Principal
Maharashtra Mahavidyalaya, Nilanga
Dr. T.A. Jahagirdar
Vice Principal
Azad Mahavidyalaya, Ausa
Organizing Secretary
Dr. Naresh Pinamkar
Dr. C.V. Panchal
Dr. Nisar Syed
Host of Conference: Santosh P. Mane, Assistant Professor, Sanvar Gandhi Kala Mahavidyalaya, Malshiras, Solapur (MS)


One Day Multidisciplinary Online
International e-Conference
On
Impact of Environment on Agriculture, Health, Water Resources, Social Life & Industrial Development
Date: -20thJuly 2021, Day-Tuesday, Time- 10.15 am to 2.20 pm (IST)
Jointly Organized by
Maharashtra Mahavidyalaya, Nilanga
Maharashtra College of Pharmacy, Nilanga
and
Azad Mahavidyalaya, Ausa
All the participants are requested join the Google meet
Join 10.15 am (IST)
To join the video meeting click the below link:
Video call link:
Video call link: https://meet.google.com/baz-nizr-gvs
Day Program Schedule
Introduction
Organizer Convener
Principal,
Maharashtra Mahavidyalaya, Nilanga
Time- 10.30am to 10.40 am IST

Photos and Screenshots of the international conference



Attendance



AZAD MAHAVIDYALAYA, AUSA

Summary Report with Outcome

Conference details:

This One Day Multidisciplinary Online International E-Conference on Impact of Environment on Agriculture, Health, Water Resources, Social Life and Industrial Development was jointly organized by Maharashtra Mahavidyalaya, Nilanga, MaharashtraCollege of Pharmacy, Nilanga, and Azad MahavidyalayaAusa on 20/07/2021. It was organized online using google meet. The conference was about Impact of Environment on Agriculture, Health, Water Resources, Social Life and Industrial Development. Our patron, Dr. A. N. Shaikh, the Secretary of Hindustani Education Society Ausa, had sent his message regarding theImpact of Environment on various things. Principal Dr. Masumdar E U read out the message. Another patron of the conference Mr. Vijay Patil Nilangekar delivered his patrons speech. Dr Praveen Saptarshi, Visiting Professor, Salisbury University delivered keynote address. Dr. Maksudur Raheman from Bangladesh and Dr. Mark Roque Medina, Saudi Arabia were invited as chief resource persons.

Outcome:

The aim of the conference was to create awareness in the participants about environmental issues. As an outcome it is found that the participants who have attended this conference are found to became familiar withtheImpact of Environment on Agriculture, Health, Water Resources, Social Life and Industrial Development in the recent times.

Date: - 20/07/2021

Azad Mahavidyalaya, Ausa.

COMPETATIVE EXAMS

Academic Year: 2020-21

During lockdown period **Azad Mahavidyalaya, Ausa, Maharashtra Mahavidyalaya Nilanga and Maitri Foundation Latur**jointly organised one day online workshop on **Preparation of Competitive Examinations** to motivate students aspirating for higher studies and guiding them to take competitive exams such as MPSC, UPSC, BANKING, RAILWAYS, SET, NET, CAT, GATE, TOEFL, GRE, IES, TNPSC etc. The workshop was organised on 30/12/2020 using Microsoft Teams.

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar Ujani Road, Ausa, Dist. Latur-413520

Academic Year: - 2020-2021

IQAC

Organized

One Day Workshop (in house)

On

Online AQAR

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Photos of Workshop on Online AQAR

Dr. C. J. Kadam, Vice-Principal and IQAC Coordinator from Maharashtra Mahavidyalaya, Nilanga & Dr. N. V. Pinamkar from Maharashtra Mahavidyalaya Nilanga was the main resource person

AZAD MAHAVIDYALAYA, AUSA

Summary Report with Outcomes
For Workshop on Online AQAR

Details of workshop:

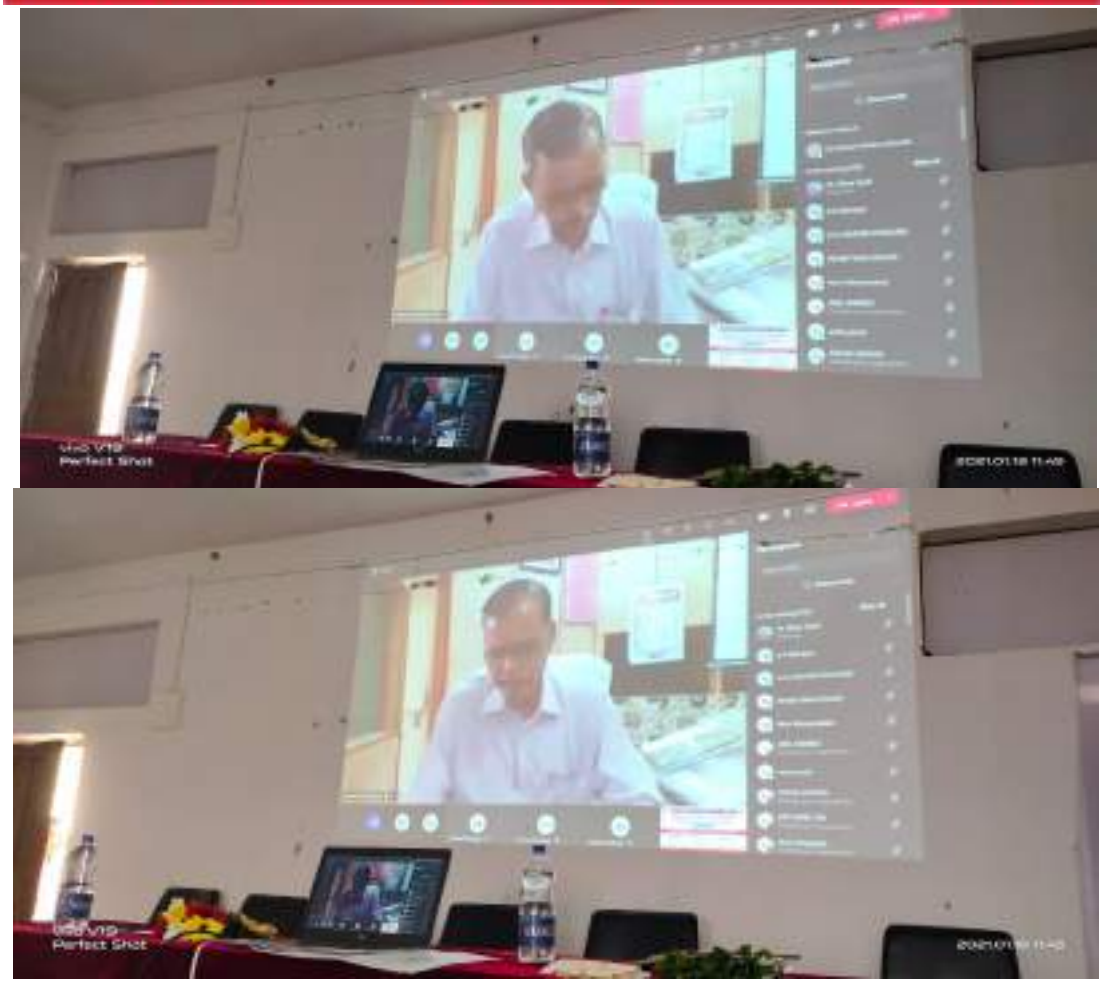
This one-day workshop was organized by IQAC on 23/12/2020. Dr. C. J. Kadam, Vice-Principal and IQAC Coordinator from Maharashtra Mahavidyalaya Nilanga was the chief speaker in the workshop. He delivered his lecture on AQAR process and system. Dr. N. V. Pinamkarfrom Maharashtra Mahavidyalaya Nilanga was the main resource person. He presented his PPT on Online AQAR. Dr. E. U. Masumdar, Principal and organizer of workshop delivered his presidential speech. Prof. T. A. Jahagirdar worked as co-organizer of the workshop.

Outcome:

The aim of the workshop was to familiarize the staff with the online system of AQAR and how to upload it to NAAC portal. As an outcome it is found that the staff who have attended this workshop are found to became familiar with online AQAR process.

Date: - 23/12/2020

Functional MoU with
Shivaji Mahavidyalaya, Barshi.



Dr. Thorat P. R. Principal Shivaji Mahavidyalaya Barshi is seen addressing in the workshop as keynote speaker. Dr. S.D Pawar, IQAC Coordinator, Shivaji College Barshi, was a resource person in the workshop

Reg. No. : OSM/36/78 F-312L
Hindustani Education Society's, Ausa
AZAD MAHAVIDYALAYA, AUSA
Afsar Nagar, Ausa-413520 Dist. Latur (M. S.)
U.G.C. Approved u/s 2(f) & 12 (B)

(Minority Status)
NAAC Accredited B+ Grade
(CGPA-2.67)

नोंदणी क्र. OSM/36/78 F-312L
हिंदुस्थानी एज्युकेशन सोसायटी संचालित
आझाद महाविद्यालय, औसा
अफसर नगर, औसा ता. औसा जि. लातूर
महामी रामानंद तीर्थ मराठवाडा विद्यापीठ नांदेड संलग्नीत

Ref. No. : AMA/249

Date / /

Date: - 18/01/2021

Letter of Thanks

To,
Dr. P.R.Thorat,
Principal
Shri Shivaji Mahavidyalaya,
Barshi.

Subject:- Letter of thanks...

Respected Sir,

I take this opportunity to express my sincere thanks to you for accepting our invitation as a keynote speaker and delivering keynote address in "National Level e-workshop on online AQAR" at our college on 18/01/2021

Hope the same response in future also.

Thanking you.

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Our Site : www.hesaazad.org Phone & Fax : (02383) 220093 E-mail : azadausa@yahoo.com

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Hindustani Education Society's, Ausa
AZAD MAHAVIDYALAYA, AUSA
Ahsar Nagar, Ausa-413520 Dist. Latur (M. S.)
U.G.C. Approved u/s 2(f) & 12 (B)

(Minority Status)
NAAC Accredited B++ Grade
(CGPA-2.67)

नोंदणी क्र. OSM/36/78 F-312L
हिंदुस्थानी एजुकेशन सोसायटी संचलित
आझाद महाविद्यालय, औसा
अहसर नगर, औसा ता. औसा जि. लातूर
स्थापनेपासून तीन वर्षांपासून विद्यापीठ सलग्नित

Ref. No : AMA/2-21

Date : / /

Date: - 11/01/2021

Invitation Letter

To,
Dr. P. R. Thorat,
Principal
Shri Shivaji Mahavidyalaya,
Barshi.

Subject:- Invitation as a keynote speaker for National Level e-workshop on online AQAR...

Respected Sir,

It gives me an immense pleasure to invite you as a keynote speaker for "National Level e-workshop on online AQAR" on dated **18/01/2021**. Kindly accept our invitation and deliver a keynote address on online AQAR in general.

Thanking you.

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

Our Site : www.hesaazad.org Phone & Fax : (02583) 220093 E-mail : azadausa@yahoo.com

AZAD MAHAVIDYALAYA, AUSA

3.5.1 Collaborative Activities

1. Collaborative Activities with Arts, Science and Commerce College, Naldurg.

Students' exchange

Students' exchange

Faculty exchange & guest lecture

Student exchange programme between Azad College Ausa &Arts, Science and Commerce College, Naldurg.

Balaghat Shikshan Sanstha, Naldurg's

Arts, Science and Commerce College, Naldurg

Dist. Osmanabad (Maharashtra)

Internal Quality Assurance Cell

Co-ordinator : Dr. Manoj C. Zade (9421356857)
Chairman Prin. Dr. S.S.Shinde (9422655257)

Date : 14/02/2020

Attendance of

Sr. No.	Name of Student	Class	Signature
1)	Pradip Dharmraj Jadhav	B.Sc III	Pradip
2)	Kore Vaibhav Shivram	B.Sc III	Vaibhav
3)	Guddle Mahesh Mahalingappa	B.Sc III	Guddle
4)	Shitre Shyam Bhushan	B.Sc III	Shitre
5)	Chavan Amol Shivaji	B.Sc III	Chavan
6)	Rathod Sagar Narayan	B.Sc III	Sagar
7)	Gire Siddhi Dhananjay	—11—	Siddhi
8)	Kamble Nayavati Maruti	—11—	Nayavati
9)	Swami Pooja Iraayya	B.Sc III	Pooja
10)	Malde Sujata Bimu	B.Sc III	Malde
11)	Salunke Aishwarya Gopinath	B.Sc III	Salunke
12)	Kazi Seema Sirajuddin	B.Sc III 154	Seema
13)	Kazi Nishad A. Gafar	B.Sc III 155	Nishad
14)	Syed Ayesha Afsin Asif	B.Sc III	Ayesha
15)	Sayyed Tahiyya M. Gouse	B.Sc III	Tahiyya
16)	Jadhav Reshma Subhash	—11—	Reshma
17)	Waghmare Rutuja Narayan	—11—	Rutuja
18)	Sayyed Tahesin Gouse	B.Sc I	Tahesin
19)	Patel Afreen Shafi	—11—	Afreen

Balaghat Shikshan Sanstha, Naldurg's

Arts, Science and Commerce College, Naldurg

Dist. Osmanabad (Maharashtra)

Internal Quality Assurance Cell

Co-ordinator : Dr. Manoj C. Zade (9421356857)

Chairman Prin. Dr. S.S.Shinde (9422655257)

Date : 11/02/2020

Attendance of

Sr. No.	Name of Student	Class	Signature
20)	Kashid shruti ~~Kashid~~ Deepak	BSc I st	Shruti
21)	Pawar shital Satish	BSc II nd	Shital
22)	Patil Upasna Vdhav	BSc II nd	Upasna
23)	Kalshetti Mamta Aananda	BSc II nd	Mamta
24)	Nalvade Vaishnavi Santosh	B.Sc II nd	Vaishnavi
25)	Bansode Sakshi Appanna	BSc II nd	Sakshi
26)	Atisha Satish Jadhav	BSc I st	Atisha
27)	Sanjana Shekhar Patil	BSc I st	Sanjana.
28)	waghmare Jyoti Hanmant	B.Sc I	Jyoti
29)	Kayale Asmita Anil	M	Asmita
30)	Bansode minakshi Appanna	M	Minakshi
31)	Halali pamini Tukaram	M	Pamini

Balaghat Shikshan Sanstha,Naldurg's

Estd. 1971

Arts, Science and Commerce Collage, Naldurg

Tq.Tuljapur, Dist.Osmanabad - 413602

Permanently affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

Principal : **Dr. Sanjay Korekar** (M.Sc.Ph.D)

(Junior, Senior & Post Graduation)

NAAC - Grade - B

Phone : (0) 02471-246042
Mob : 9422749552
Email : asccollegenaldurg@gmail.com
Website : www.asccollegenaldurg.com

Ref. /2020-21/080

Date 31/01/2020

To,

The Principal,

Azad Mahavidyalaya,

Ausa. -

Sub : Visit of Students to the Laboratory under Student Exchange programme in accordance with MOU

Respected Sir,

As a part of student exchange programme under MOU signed with the department of physics of your college, the students from the department of Physics of our college are visiting your college on 01/02/2020 with an intention to give exposure to the exceptional facilities available in your laboratory of Physics & Electronics.

Please allow them to visit and have interaction with your faculties as well.

Thank You.

PRINCIPAL
Arts, Science & Commerce
College Naldurg
Dist. Osmanbad
Pin - 413 602

Principal

Balaghat Shikshan Sanstha,Naldurg's Estd. 1971

Arts, Science and Commerce Collage, Naldurg

Tq.Tuljapur, Dist.Osmanabad - 413602
Permanently affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

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NAAC - Grade - B

Phone : (0) 02471-246042
Mob - 9422749552
Email : ascnaldurg@gmail.com
Website : www.ascnaldurg.com

Ref. /2020-21/080 Date 31/01/2020

To,

The Principal,

Azad Mahavidyalaya,

Ausa.

Sub : Visit of Students to the Laboratory under Student Exchange programme in accordance with MOU

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Please allow them to visit and have interaction with your faculties as well.

Thank You.

PRINCIPAL
Arts, Science & Commerce
College Naldurg
Dist. Osmanbad
Pin - 413 602

Principal

List of students from A.S.C. college Naldurg.

List of B.Sc-IIIrd Year Students Visited to Dept. Of Physics & Electronics,Azad College Ausa on 01/02/2020 as part of MOU.

Sr. No.	Name Of the Student	Class	Sign
1	Ku.Gire Siddhi Dhananjay	B.Sc-III	
2	Shitre Shyam Bhaskar	B.Sc-III	
3	Jadhav Pradip Dharmraj	B.Sc-III	
4	Ku.Katte Aarti Rajendra	B.Sc-III	
5	Ku.Halde Sujata Biru	B.Sc-III	
6	Ku.Swami Pooja Irayya	B.Sc-III	
7	Ku.Jadhav Reshma subhash	B.Sc-III	
8	Chavan Kiran Tukaram	B.Sc-III	
9	Gudde Mahesh Mahalappa	B.Sc-III	
10	Rathod Sagar Narayan	B.Sc-III	
11	Chavan Amol Shivaji	B.Sc-III	
12	Surwase Ishwar Dattatray	B.Sc-III	

Department of Electronics
Azad College Ausa Dist. Latur

Reg.No. UBSM/36/78 F.312 L.

Hindustani Education Society's

AZAD MAHAVIDYALAYA, AUSA

Afsar Nagar, Ausa Tq.Ausa Dist.Latur

Affiliated To S.R.T.M.University, Nanded, NAAC accredited B+

नोंदणी क्र.UBSM/36/78 F.312 L.

हिन्दुस्थानी एज्युकेशन सोसायटीचे

आझाद महाविद्यालय, औसा

अफसर नगर, औसा ता.औसा जि.लातूर

जा.क्र. AMA/phy muu/02/2020

दिनांक. 1/02/2020

To,

Dr. S. S. Shinde,

Department of Physics,

Arts, Science and Commerce College,

Naldurg, Dist. Osmanabad

Subject : **Letter of Appreciation**

Sir,

Our Department of Physics & Electronics has organized a series of guest lecture for the students of under graduate. As a part of this lecture series, you have been invited to share your valuable thoughts and views on the topic **Transistor Manufacturaring and Mechanism** on date **01/02/2020.**

We are happy to inform you that our students have enjoued your thoughts provoking lecture. We hope to get your kind co-operation in future also.

Thanking you

Received
1/02/2020

O/C

Principal
Azad Mahavidyalaya
Ausa Dist. Latur

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फोन नं.02383- 220093,220270 फॅक्स नं.02383- 220093 इमेल.azadausa@yahoo.com.


Latitude: 17.878553
Longitude: 76.267733
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Time: 14-02-2020 12:55
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Guest Lecture
Ujjaini Mahakaleshwar
Madhya Pradesh
India
26°C
79°F

Guest Lecture
on

Department of Physics & Electronics
Guest Lecture
on
Importance of Practicals in Scien

Guest Lecture
on

Structural Study of Zirconium (Zr^{4+}) doped Nickel-Zinc Ferrite.

R. M. Mahindrakar[1], B.U. Patil[2], R. V. Suryawanshi[3]

[1]*Department of Physics, Arts, Science and Commerce College Naldurg, Ta. Tuljapur, Dist. Osmanabad-413602 M.S. India*

*Email:some.rohini@gmail.com, Mobile: 7972566605

[2]*Department of Physics, Kohinoor College Khultabad, Tq. Khultabad, Dist. Aurangabad-431101M.S., India*

[3]*Department of Electronics, Azad Mahavidyalaya Ausa, Ta. Ausa, Dist. Latur- 413520, M.S., India*

***Abstract* — In this paper ,the synthesis and structural properties of Zirconium doped Nickel Zinc ferrite prepared by sol-gel auto combustion technique have been reported. The products of the system were produced by keeping metal nitrate to citrate ratio 1:3 and adding Ammonia maintaining PH at 7. All the samples were heated at 650° for 7 hours. The X-ray diffraction patterns of all the samples are recorded at room temperature. All the Planes are allowed and planes which confirm the formation of single phase cubic spinel structure of $Ni_{0.7-x}Zn_{0.3}Zr_xFe_{2-2x}O_4$. The particle size was calculated using Debye-Scherer's formula using XRD data.**

Key Words: Nickel Zinc Ferrite, Sol-gel, XRD.

I INTRODUCTION

Ferrites are the ferrimagnetic metal oxide materials which possesses the combined properties of magnetic conductor and electrical insulator. They have been comprehensively investigated and being is subject of great interest of their importance in many technological applications such as antenna rods, transformer cores, magnetic data storage, sensors, actuators , catalyst etc. [1, 2]. These electrical and magnetic properties are affected by the type of substituent, microstructure, chemical composition, synthesis methods and synthesis parameters [3, 4, 5].

Spinel ferrites are compounds of iron oxides and some transition metal oxides and their exhibit important electrical and magnetic properties which made them extensively useful in technological and industrial applications such as magnetic storage in microwave devices [6, 7]. Nickel Zinc ferrites are of soft magnetic material. Such type of material are used in filters, deflection yoke, radar observer, antennas, broadband transformers, inductors and also used in noise filters as well as recording heads due to their excellent properties such as high initial permeability and high saturation magnetization [8].

Various substituent of magnetic and nonmagnetic nature like Co,Zn, Al etc. have been incorporated in Nickel ferrite to modify their properties. However to our knowledge

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Research paper of Dr. R. V. SuryawanshiHOD Electronics, Azad Mahavidyalaya, Ausa with Dr. R. M. Mahindrakar HOD Physics, A. S. C. College, Naldurg.

CONTEMPORARY RESEARCH IN INDIA (ISSN 2231-2137): SPECIAL ISSUE : MAY, 2021

IMPACT OF THE COVID-19 PANDEMIC ON EDUCATION

R. V. Suryawanshi[a], R. M. Mahindrakar[b] and G. D. Tingare[a],

[a]Department of Electronics, Azad Mahavidyalaya Ausa, Ta. Ausa, Dist. Latur, M.S. India

[b]Department of Physics, Arts, Science and Commerce College Naldurg, Ta. Tuljapur, Dist. Osmanabad, M. S., India

Abstract: *The COVID-19 pandemic has affected instructional systems over best world, resulting in the closings of faculties, universities and faculties. Governments determined to provisionally shut instructional establishments in an endeavor to scale back the unfold of COVID-19. Several countries presently implementing wide closures and are implementing native closures, impacting nearly fourty seven percent of the world's student population.College closures impact not onlyon students, teachers, and families but have widespread economic and social consequences. College closures in response to the pandemic have affect on social and economic problems, as well as student debt, digital learning, food insecurity, and impoverishment, yet as access to service, health care, and housing, internet, and incapacity services. The impact was additional severe for deprived kids and their families, manufacturing interrupted learning, compromised nutrition, service issues, and eventful economic value to families. Efforts to slow the unfold of COVID-19 through non-pharmaceutical interferences and defensive measures like social-distancing and self-isolation have sponsored the wide unfold nearer of primary, secondary, and tertiary schooling. Mathematical demonstrating has shown that transmission of a pandemic could also be postponed by closing faculties. Influence depends on the contacts kids maintain outside of faculty. College closures appear effective in decreasing cases and deaths, particularly once recognized duly. If college closures occur late vertical to a pandemic, they're less effective and should not have any impact in the least. The reopening of schools and colleges once a amount of closure has resulted in enlarged infection rates. As closings tend to occur at the same time with different interventions like public gathering bans, it will be troublesome to live the precise impact of school, college closings.*

Key Words: *instructional systems, college closures, interrupted learning, incapacity services, Interventions.*

1. Introduction

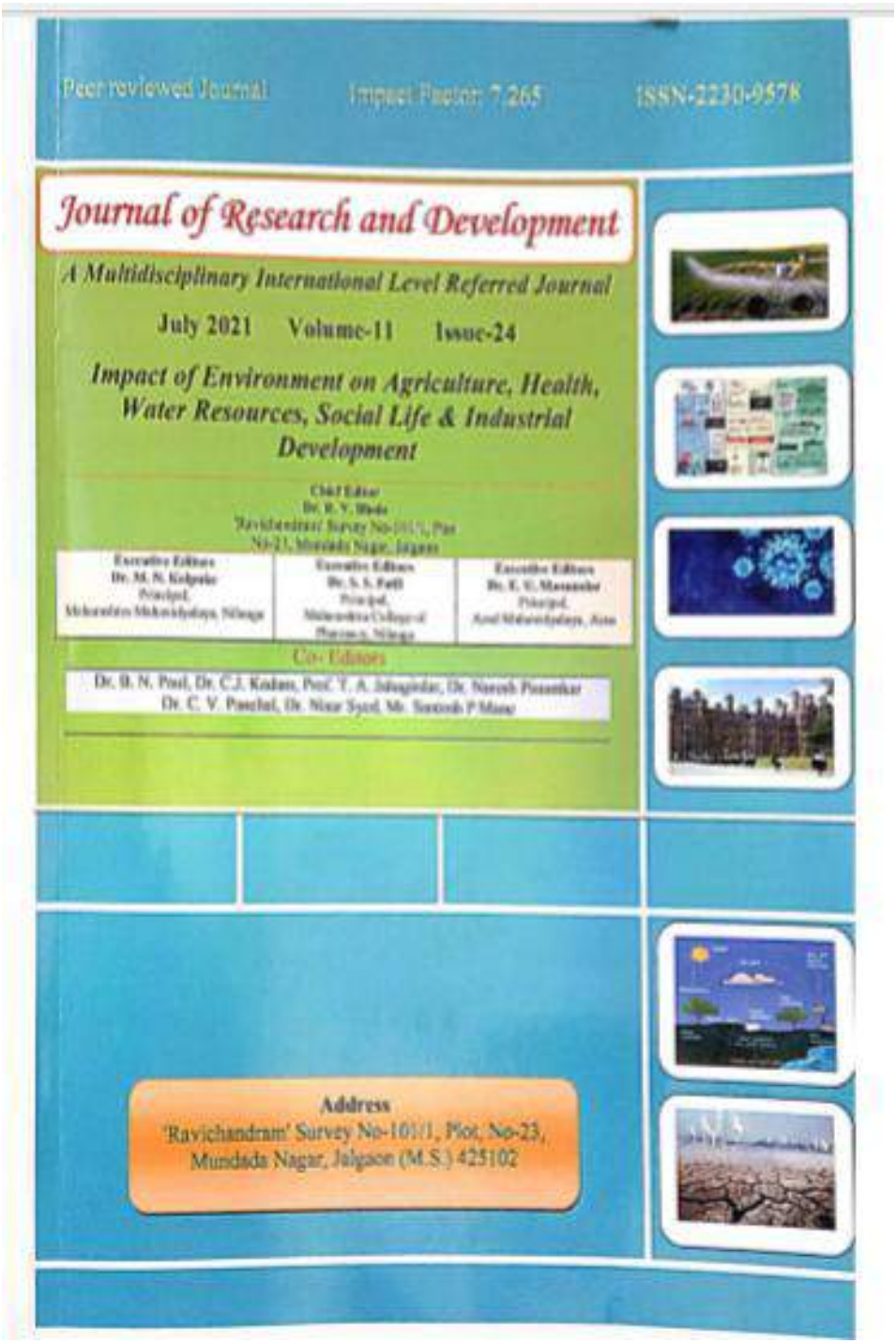
As of twelve January 2021, or so 825 million learners affected due to college closures in response to the pandemic. As per United Nations International Children's Emergency Fund watching, twenty three countries presently implementing nationwide closures and forty measure implementing native closures. One hundred twelve countries' schools presently open(1-5),college closures within the town of Japan etc. were found to possess with success ablated variety of infected students at the height of infection, but closing colleges wasn't found to possess considerably ablated the entire number of infected students/(6). Obligatory college closures and different social distancing measures were related to a twenty ninth to thirty seventh reduction in grippe transmission rates (7). Once there's lowest to moderate community transmission, social distancing methods will be enforced like suspending or cancelling journeys, assemblies, and different huge gatherings like education or choir categories or meals in an exceedingly restaurant, increasing the house between desks, staggering arrival and dismissal times, limiting nonessential guests, and employing a separate health workplace location for youngsters with flu-like symptoms. Once there's substantial transmission within the area people, additionally to social distancing methods, extended college dismissals could also be thought-about (8). Methods i.e. of rotating schedules, feeding lunch within the schoolroom, and utilizing outside places are some ways that to attenuate shut contact. The precautions of face masks, hand sanitizer stations, rearranging school rooms to help physical distancing, and frequent cleanup. Younger kidsare at higher risk of sorrow from long educational significances and organic process insufficiencies while not in-person learning. Instructional establishments revolved to

Research paper of Dr. R. V. Suryawanshi HOD Electronics, Azad Mahavidyalaya, Ausa with Dr. R. M. Mahindrakar HOD Physics, A. S. C. College, Naldurg.

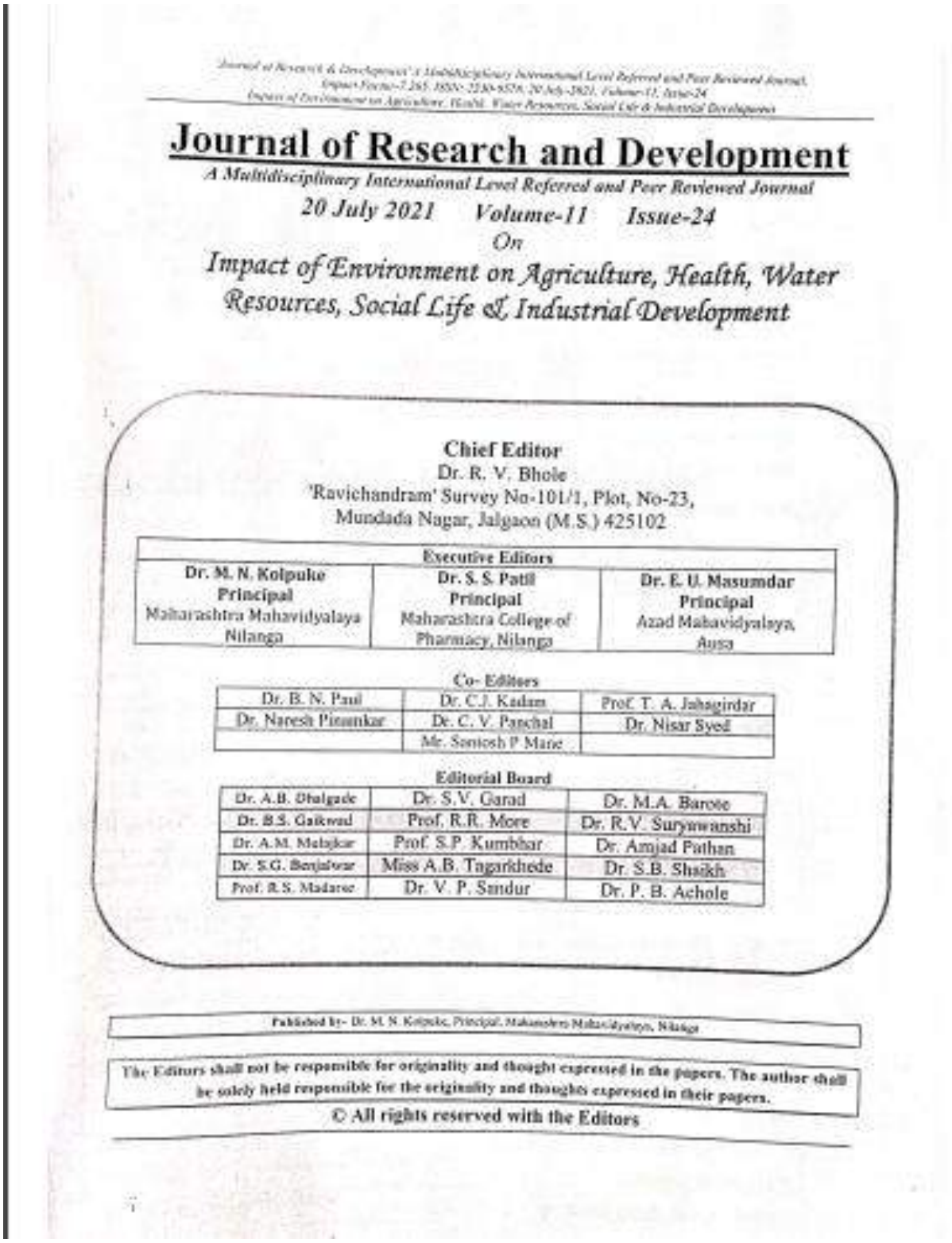
Collaborative activities with RajarshiShahuMahavidyalaya, Latur.

Guest lecture on Nanotechnology by Dr. Abhijit Yadav HOD Physics RajarshiShahuMahavidyalaya, Latur.

Collaborative activities with Maharashtra Mahavidyalaya, Nilanga.



Publication of research journal in collaboration with Maharashtra MahavidyalayaNilanga.



Journal of Research and Development

A Multidisciplinary International Level Referred and Peer Reviewed Journal

20 July 2021 Volume-11 Issue-24

On

Impact of Environment on Agriculture, Health, Water Resources, Social Life & Industrial Development

Published by:- Dr. M. N. Kolpuke, Principal, Maharashtra Mahavidyalaya, Nilanga

Publication of research journal in collaboration with Maharashtra MahavidyalayaNilanga.

19-20

2020

OUR HERITAGE
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ONE DAY NATIONAL CONFERENCE ON RECENT ADVANCES IN SCIENCES
Held on: 13th February 2020
Organized by: Department of PHYSICS, CHEMISTRY, MATHEMATICS, BOTANY & ZOOLOGY Shivaji Arts, Commerce and Science College Kannad, Dist: Aurangabad (MS)

FTIR and Optical Absorption Studies of $CuSe_2$Thin Film

R. V. Suryawanshi[a], G. D. Tingare, R. M. Mahindrakar[b]

[a]*HOD, Department of Electronics, Azad Mahavidyalaya Ausa, Ta. Ausa, Dist. Latur- 413520, M.S., India*

[b]*Department of Physics, Arts, Science and Commerce College Naldurg, Ta. Tuljapur, Dist. Osmanabad-413602 M.S, India*

** E-mail : *Email: rangrao@gmail.com.*

Abstract

Polycrystalline thin films of $CuInSe_2$ have been prepared by Chemical Spray Pyrolysis technique. The films were obtained onto glass substrates by spraying the precursor solutions of A.R. purity. The preparative parameters, equimolar (0.05 M) concentration solution, 5 ml / min Spray rate, distance between nozzle to substrate (30cm) were optimized to obtain good quality thin films. FTIR and optical absorption studies of $CuSe_2$Thin Film were investigated. The as - deposited films were characterized for physical structure. The morphology of CuSe has been studied with scanning electron microscope (SEM). The optical studies revealed that the absorption coefficient is high (10^{-4} to 10^{-5} cm^{-1}) and the energy gap decreased continuously from 2.13 eV. The electrical transport studies for these films were also examined. The different transport characteristics of the films have also been determined. Thermo power measurements showed that the samples are n-type.

Keywords: Chemical Spray Pyrolysis, $CuSe_2$, thin films, thermo power.

1. Introduction

Substantial progress has been made in polycrystalline thin-film photovoltaics in the last few years [1]. All the thin-film deposition techniques used for the fabrication of high-efficiency CIS cells are costly and require sophisticated instruments. A low-cost process for the deposition of CIS thin-film layers is yet to be developed. This has been identified as one of the important

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Composition and Morphological properties of the F doped ZnO thin films

E. U. Masumdar[a] and M. A. Barote[b]*

[a] *Thin Film Physics Laboratory, Department of Physics, Rajarshi Shahu Mahavidyalaya - Latur-413512, Maharashtra, India. (emasumdar@yahoo.com)*

[b] *Department of Physics, Azad college, Ausa-413520, Maharashtra, India.*

*(*Corr. Author)(barotema1971@gmail.com)*

Abstract

The simple and cost effective spray pyrolysis technique is used to for the F doped ZnO thin films. The fluorine doped thin films were deposited on preheated amorphous glass substrates at temperature 450°C. The dopant percentage of F is increased, the grain size is increased. The elements of O, Zn and F were found on surface of the FZO film.

Keywords: ZnO thin films. Spray pyrolysis, EDAX

1. Introduction

Doped ZnO films offer a promising alternative to indium tin oxide (ITO) as a transparent conducting front contact layer in CdTe/CdS solar cells. The substitutional doping of ZnO films with group III metals such as Al, B and Ga has been widely reported [1–5], however out-diffusion of the electrically active metal dopants during subsequent cell fabrication procedures can lead to detrimental effects on device performance. It has been shown, using reactive RF sputtering, that ZnO films can instead be doped with fluorine and maintain comparable electrical and optical properties to those of the group III doped films [6-9]. Such films should be better suited for maintaining stability in CdTe/CdS solar cells where the diffusion of F out of the layer during subsequent high temperature fabrication of CdS and CdTe layers is unlikely to cause a significant degradation in device performance [10-12]. Apart from the academic interest, the fluorine doping has several potential advantages over the well-known and successful In-doping, such as low cost and abundance. More over fluorine does not introduce significant perturbation into the conduction band, due to the size compatibility of the oxygen and fluorine atoms [13-14].

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Comparative Study of Physico-Chemical Parameters of Godavari River Water of Paithan and Kaigaon Locality from Aurangabad District (M.S.) India

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[1]Department of Zoology, L.B.S. College, Dharmabad, Nanded. (M. S.), India
[2]Department of Zoology, Azad College, Ausa, District Latur, 413520, (M.S.), India.
[3]Department of Zoology, Late Ramesh Warpudkar ACS College, Sonpeth 431516 (M. S.), India
khanamjed777@gmail.com

Abstract

The quality of surface water has progressively worse in India in the past few decades. As a result of the urbanization, growing population, agriculture, and increasing industrialization, the inland water bodies are confronted with the increasing water demand, as facing with extensive anthropogenic emissions of nutrients and sediments, predominantly the river and reservoirs. To resolve this problem, it is necessary to carry out water quality assessment, planning, and management, in which water quality monitoring plays an important role. This comparativestudy aimed at assessing the water quality Godavari river water of Paithan (Downstream) and Kaigaon (Upstream)of Nath Sagar From Aurangabad District (M.S.) India. Godavari river water is used for irrigation, livestock watering and fish production. This study carries using some selected physico-chemical parameters. The result of water samples shows high pH indicates the basic nature of water samples;the obtained values of each parameter were compared with the standard values set by the World Health Organization (WHO). The values of each parameter were found to be within the beyond safe limits set by the WHO. Overall, the water from all the locations was found to be safe as drinking water. However, it is also important to investigate other potential water contaminations such as chemicals and microbial and radiological materials for a longer period of time, including human body fluids, in order to assess the overall water quality of Godavari river water of Paithan and Kaigoan localities.

KEYWORDS: Water Samples, Assessment, Godavari river.

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Issue 2(b) (C) : Introspection, Progress and Strategy for Global Water Resources
Peer Reviewed-Referred Journal

Importance of Water in Life and Affects of Climate on Water

Nanda S. Korde[1]* and Seema S. Korde[2]
[1]Dayanand Science College, Latur
[2]Azad College, Ausa
Email: nandinee.korde0@gmail.com

Abstract:

Water is a mother liquid of all forms of life. Also water protects the tissues, spinal cord and joints. Drinking enough water helps our kidney to work more efficiently and thus preventing kidney stones. Keeping ourselves hydrated also affects our strength, power and endurance. Extreme dehydration can cause seizures and sometimes even death. Thus next to air(oxygen0 is the most essential element to human life. The human body needs water in order to survive. But water is greatly affected by climate change and Climate change impacts will have direct consequences for water security. Climate changes has warmed up water bodies and caused harmful algal blooms to become greater problems in rivers, lakes and oceans in the US and around the world.

Key word: Water, universal solvent, hydrogen bonding, climate change impact

Introduction:

Water is a mother liquid of all forms of life. The essentiality of water for living system is quite evident as without water, there is no life. No other substance on earth is abundant as water. According to experts, water is ranked second only to oxygen as essential for life. We couldn't survive for more than a few days without it. All plants and animals need water to survive because 60% of our body weight is made up of water. Our body loses water through sweating, breathing and digestion so our body uses water in all the cells, organs and tissues to help to maintain the temperature of body constant. Water is very much useful in every aspects of our lives including household consumption, flower, vegetables gardens, restaurants, hospitals, laundries, dry cleaners, golf courses, hostels, car washes, beauty shops, barber shops, gas stations, health clubs, hydroelectric plants, industries, recreations as well as many other business activities.

In nature, water exists in three states such as liquid, solid and gas. It is in dynamic equilibrium between the liquid and gas states at standard temperature and pressure. At room temperature, it is tasteless and odorless liquid, nearly colorless with a slight hint of blue. Many substances dissolve in water and it is commonly referred as the universal solvent.

Importance of water in living system:

Water plays an important role in our body such as:

- Water can dissolve most of the biologically important molecules.
- It is the solvent of life. The life originated in water and adopted to survive only in the presence of water.
- Water act as a medium for the diffusion of molecules in the cell.
- Carbohydrates, product of photosynthesis in plants, are transported through the water.
- Oxygen is released by the hydrolysis of water during photosynthesis.
- Water supports aquatic plants and animals.

2020

Akdisi Multidisciplinary UGC Care Listed, International Research Journal, ISSN: 2320-4079, December
Special Issue, Volume-4 "Multidisciplinary Perspectives on Health, Society, Environment & Sustainable Dev

Efficeiancy and Significance Role of Disaster Management

Dr. P.B .Achole[1] Mr. .Swami R. M[2]

1Associate Prof & Head Department Of Geography,Azad Mahavidyalaya Ausa ,Latur
2 Research scholar and Assistant prof. Dept of Geography ,Walchand College Arts and science solapur.

Abstract:

The general perception of disaster management relates to activities that follow once the disaster strikes. Rescuing people,providing them shelter,food and water, ensuring medical care to those in need and preventing any offshoot of the disaster like an epidemic and many such activities are considered as part of disaster management .these are steps to deal with an emergency or a crisis situation. Managing disasters has become a very important area of study and research in view of the increasing frequency of their occurances.Management by itself is considered to consist while disaster management also includes managing a crisis situation ,planning for disaster preparedness is also an important component. There must be plan in place and communication between agencies must be maintained for ease of operation and avoid confusion. Disaster managers is applied to a person who has responsibility for planning and managing pre-and /or post disaster activities in positions in many different types of agencies. The most prominent disaster maze personal in governmental disaster preparedness agencies, national emergency or relief agencies and department of or ministries. Mitigation is the most important function in bringing disasters under control .the more that can be done to reduce the effects of disaster, the fewer problems a disaster manager will face in the aftermath. Among relief organization vary according to each agencies' roles biases,and capabilities.

Key words : Disaster,Management,Preparedness and Rehabilitation

Objectives:

1. TO study efficiency and different types of role of disaster management.
2. To identify government and private agencies to ensure coordinated action by all agencies of disaster management.
3. To inform and plan about organize disaster preparedness.

Introduction:

The natural disasters can be efficiently handled by quick response of the govern ment also by the help rendered by local organizations. Disasters are many types but a simple and very broad classification is as 'natural' and 'manmade 'natural disasters are many like earthquakes, floods ,volcanic eruption tsunamis and cyclones. With improved technological tools available today. Many natural disasters can be predicted reasonably well advance ,which gives us time to take preventive actions and cope with them effectively. Both types of disasters can have high impact on the environment and ecology of region .Flora and fauna of the affected region of the sea gets destroyed causing great loss of biodiversity.(R .Subramanian,p.n .5)

Methodology:

The present study on efficiency and role of natural disaster management is totally based on secondary data .the has been collected from the various ecological and disaster management related articles , E-Journals ,magazines research papers ,reports, and environmental governmental websites as well as published books of environmental subjects with daily news papers.

Meaning of Disaster management :

1 Desaster management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters.

2 "Disaster management" can be defined as the range of activities designed to maintain control over disaster and emergency situations and to provide a framework for helping at disaster management deals with situations that occur prior to, during, and after the the disaster.(Diwan ,p.n .5)

DISASTER MANAGEMENT INSTITUTIONS:

UN Disaster Management Team (UNDMT)

The un office for coordination of humanitarian affairs has been made responsible by the UN general assembly mandate for all international disaster response .India provides an important platform fort the UNDMT to implement disasters preparedness and mitigation efforts and strengthen governments capacities on disaster risk managements .the primary purpose of the UNDMT is to

2020

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(UGC Care Group I Listed Journal)

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प्रादेशिक नियोजनात लोकशाही आणि समाजवादी नियोजन म्हणजे एक विकास प्रकल्प.

प्रा. डॉ. आचोले पी. बी.
भूगोल विभाग
(आझाद महाविद्यालय औसा. ता. औसा जिल्हा लातूर)

प्रा. दोरवे एस. आर.
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९८२२७९८६५२

दीर्घकालीन उद्दिष्ट ठेऊन लघुउद्योग स्थापन केले जातात आणि जो मागासलेला प्रदेश आहे त्या प्रदेशात दीर्घकालीन नियोजन शासनाद्वारे केले जाते. देशाची अर्थव्यवस्था मजबूत करण्यासाठी लघुउद्योग, अवजड उद्योग विकासाचा पाया घालतात

आणि हे प्रकल्प मोठ्या प्रमाणात विकास करण्यात उपयुक्त ठरतात व सामाजिक समस्यांचे निर्मूलन करता येते. राष्ट्र विकास आर्थिक विकास आणि शेती विकास, उत्पादन वाढ करून औद्योगिक उत्पादने आंतरराष्ट्रीय बाजारपेठेत पाठवता येतात . परिवहन ,रस्ते वाहतूक या घटकाच्या विकासातून आपली उद्दिष्टे साध्य करता येतात. लोकसंख्या वाढीवर नियंत्रण व उपाय योजना करून कृषी क्षेत्र वाढवून औद्योगिक विकासाचे क्षेत्र विकेंद्रित करून शिक्षण, आरोग्य क्षेत्रात आमूलाग्र बदल घडून आणण्यासाठी मदत होते . राष्ट्राच्या सुरक्षिततेच्या दृष्टीने प्रयत्न करता येतो पर्यावरणाचे संतुलन राखून याद्वारे नैसर्गिक उपलब्ध साधन संपत्तीचे संवर्धन करण्यासाठी आणि मानवाला मूलभूत गरजा प्राप्त करून देण्यासाठी मानवाचे जीवन उंचावण्यासाठी प्रयत्न करता येतो

भारतीय प्रदेशात स्वातंत्र्यपूर्व काळातही प्रशासनाला आर्थिक विकासाचे महत्त्व पटले त्यामुळेच स्वदेशी वापर करणे हे किती महत्त्वाचे आहे यासाठी भारतीय स्वातंत्र्यसंग्राम काळातही एक फळी उभी केली गेली. आणि गरीब, मागासलेल्या देशाचा जलद विकास साधावयाचा असेल तर नियोजनाची कास धरली पाहिजे. त्यामुळे प्रादेशिक नियोजनासाठी "राष्ट्रीय नियोजन समिती" निर्माण करण्यात आली. कारण अशा अप्रगत देशात व समाजात प्रागतिक आणि विरोधी घटक एकाच वेळी कार्यप्रवण असतात. प्रागतिक विचार देणारे घटक मानवाच्या सर्वांगीण विकास होऊन त्याचा फायदा मानवाला होतो. अधिक सुखी समृद्ध जीवन जगण्यासाठी होतो . [illegible] विरोधी घटक [illegible] [illegible] प्रगतीचा मार्ग [illegible] समाज ,व्यक्ती आणि देश यांचा विकास साधण्यासाठी समाजातील विविध प्रगतीच्या घटकांना एकाच [illegible] प्रयत्न [illegible] नियोजन होय. कोणत्याही देशाच्या समस्यांची तड़ाई [illegible] असेल तर [illegible] विचारपूर्वक [illegible] . विरोधी [illegible] [illegible] [illegible] देश [illegible] नियोजनाने [illegible] साधला पाहिजे. [illegible] विकासाचा विचार करता पाहिजे. [illegible] नाही तर [illegible] आणि [illegible] होणारा विकास [illegible] आणि [illegible] विकास साधण्याचा प्रयत्न [illegible] प्रयत्न असमर्थ ठरू शकतो.

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I-V CHARACTERISTICS OF CHEMICAL BATH DEPOSITED $Cd_{1-x}Mn_xS$ THIN FILMS

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Abstract

A photoelectrochemical (PEC) solar cell with configuration $Cd_{1-x}Mn_xS$ / 1M (NaOH-Na_2S-S) / C is formed. The photo-voltage increases with polarity negative towards the $Cd_{1-x}Mn_xS$ electrode, showing that $Cd_{1-x}Mn_xS$ is of n-type semiconductor. The current voltage (I-V) characteristics for n- $Cd_{1-x}Mn_xS$ cells with varying composition (x) have been studied. The junction ideality factors under light are calculated from the slope of the plot log I against V, and have values from 1.86 to 1.53 for ITO substrates.

Keywords: PEC, $Cd_{1-x}Mn_xS$ thin films, I-V characteristics, Junction ideality factor.

Introduction

Photoelectrochemical (PEC) cells of various designs have been used to convert solar energy into suitable forms for more efficient use [1-6]. It is an alternative to the commercially available solid state junction photovoltaic cells for the direct conversion of sunlight into electrical energy [7-8]. Photoelectrochemical (PEC) cells have been widely studied for solar as well as non-solar applications. Cadmium chalcogenides in the form of single crystals, sintered pellets and polycrystalline materials have been employed in PEC cells [9]. The efficiency and stability of PEC cells are strongly dependent on the preparation conditions of the photoelectrodes, electrolytes and on experimental conditions [10]. These cells are simple in construction and have the advantage that they can be used for both electrical and chemical energy conversions. The basic requirement of a good PEC cell is thin film photoelectrode of low resistivity and of large grain size [11]. The large grain size leads to reduction of grain boundary area of thin films with important consequences for efficient energy conversion. The low resistivity of the photoelectrode minimizes the series resistance of the PEC cell.

Experimental details

The polysulphide electrolyte solution was prepared in an aqueous medium. The basic ingredients used for the preparation of solution were as follows

(i) A. R. Grade Sodium sulphide (Na_2S) supplied by S. d. fine Chem. Ltd., Boisar, Mumbai.
(ii) A. R. Grade Sulphur powder (S) supplied by S. d. fine Chem. Ltd., Boisar, Mumbai.
(iii) A. R. Grade Sodium hydroxide (NaOH) supplied by S. d. fine Chem. Ltd., Boisar, Mumbai.

One molar polysulphide electrolyte was made in double distilled water by adding appropriate amounts of sodium hydroxide and sodium sulphide at room temperature. In this solution, sulphur was added and mixture was stirred rigorously. Then mixture was filtered and stored in an air sealed bottle. The colour of the final solution was yellowish pink.

Construction of photoelectrochemical (PEC) solar cell

A photoelectrochemical solar cell was fabricated using a standard three electrode configuration with $Cd_{1-x}Mn_xS$ thin film as an active photoanode of area 1×1 cm^2, graphite as counter electrode and standard calomel electrode (SCE) as a reference electrode. The redox electrolyte used was aqueous 1M polysulphide (NaOH + Na_2S + S). A 100 W tungsten filament lamp was used as a light source. To prevent heating of the cell, water lens was interposed between the lamp and the cell. The distance between the photoanode and counter electrode was kept 0.3 cm.

Results And Discussion

I-V Characteristics of $Cd_{1-x}Mn_xS$ photoanode:

The current voltage (I-V) characteristics for n- $Cd_{1-x}Mn_xS$ cells with varying composition (x) have been studied. When a semiconductor material is kept into the solution of a redox electrolyte, the motion of charge carriers occurs at semiconductor-electrolyte (S/E) interface generating the electric field at the interface.

When this interfaces illuminated by light of photon energy greater than optical gap of semiconductor, excess charge carriers are generated that are separated at the space charge region gives rise to open circuit voltage. This voltage acts as the driving force for further flow of electrons from semiconductor to the counter electrode whereas an electrolyte captures the holes [12-16]. The current transport mechanism through the interface can be defined by Butler-Volmer relation [17] as

$$I = I_0 \left[e^{-\frac{(1-\beta)V}{kT}} \right] \left[e^{\frac{\beta V}{kT}} \right] \qquad (1)$$

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DAMA

HISTOCHEMICAL ANALYSIS OF INTESTINES OF *MASTACEMBELLUS ARMATUS* *INFECTED WITH SENGA* SPECIES

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ABSTRACT

The present study deals infection of particular parasite and particular impact on host fish species. Different histochemical reactions showed localization of different chemicals. With the Moreover, the histochemical investigations provide an insight into the natures of various physiological and pathological processes in the gastrointestinal tract occurred due to parasites. It has been observed that the different constituents are stimulated by particular parasite and particular loss in different organs of the digestive system of the fish studied. Histochemical study may provide a valuable with low cost-effective tool for the diagnosis of diseases in histopathology, parasitic investigation and for the researchers in histopathology. The present study includes the histochemical analysis of *Senga* species infected fish intestines in *Mastacembellus armatus*.

KEYWORDS: Histochemical, *Mastacembellus armatus*, *Senga* Species.

INTRODUCTION

India is the mega biodiversity country in the world. Fish are the most important inhabitants of the aquatic ecosystem mainly marine and fresh water and provides the human population cheap and easily digestible proteins. In India it is estimated that about 10 million tons of fishes are required to meet the annual demand of fish proteins as compared to an actual annual production of only 3.5 million tons (Shukla and Upadhyay, 1998). The major component of fish is protein. Fish proteins have a high biological value. It also contains variable quantities of calcium, phosphate, fat and other nutrient important for human health and growth. Fish provides the world's prime source of high-quality protein, 14-16% of the animal protein consumed worldwide; over one billion people consume fish as their primary source of animal protein.

Recent studies indicate that of 750 species of freshwater fish species found in India, a large number of them are familiar only to the local population. Intestinal parasitic helminths have a serious impact on fish health, productivity, quality and quantity of meat. Fish parasitic populations are known to differ due to variation in the environment and host population (Dogiel, 1961). Helminth parasites of fishes are commonly divided into three main groups; cestodes, nematodes and trematodes. Kennedy, (1975) stated that population investigation can provide date for the predication of integrated methods to achieve the regulation of numbers of harmful parasites, because it has been stated that a single method of control have little value, whereas coordinated activities ameliorate the infection.

The genus Senga was established by Dollfus (1934), with its type species *S. bennetti* from Betta splendens at Vincennes, France. *S. ophiocephalina* Tseng (1933), as *Anchistrocephalus ophiocephalina* from *Ophiocephalus argus* at Taiwan. Hiware (1999) reported a new tapeworm *Senga armatusae* n.sp. from freshwater fish, *Mastacembelus armatus* at Pune (M.S.). Jadhav and Shinde (1980) reported new species, *Senga aurangabadensis* from *Mastacembelus armatus*. Johri (1956) reported the cestode *Senga lucknowensis* from *Mastacembelus armatus*. Kadam et al., reported a new cestode *Senga pathanensis* n.sp. (Cestoda:Ptychobothriidae) from *Mastacembelus armatus*.

MATERIALS AND METHOD

Preparation of slides for histochemical studies:

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Analysis of Physico-Chemical water quality to assess environmental degradation of Malapur dam from Jalgaon district (M.S.) India

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ABSTRACT

The quality of surface water has progressively worse in many countries in the past few decades. As a result of the growing population, urbanization, agriculture, and increasing industrialization, the inland water bodies are confronted with the increasing water demand, as facing with extensive anthropogenic emission of nutrients and sediments, predominantly the lakes and reservoirs. To resolve this problem, it is necessary to carry out water quality assessment, planning, and management, in which water quality monitoring plays an important role. This study aimed at assessing the water quality of Malapur Dam from Jalgaon District (M.S) India.

Malapur Dam used for irrigation, livestock watering and fish production. This study carries using some selected physico-chemical parameters. The result of water samples shows high pH indicates the basic nature of water samples, sulphate in the dam water was high, the phosphate content of reservoir water were found high which lead to unpleasant taste and odor. The obtained values of each parameter were compared with the standard values set by the World Health Organization (WHO). The values of each parameter were found to be within the beyond safe limits set by the WHO. Overall, the water from all the locations was found to be not safe as drinking water. However, it is also important to investigate other potential water contaminations such as chemicals and microbial and radiological materials for a longer period of time, including human body fluids, in order to assess the overall water quality of Malapur Dam.

Key words: Water Samples, Environmental Degradation, Malapur Dam.

INTRODUCTION

Water is the most important essential component for the living being. Water plays a significant role in maintaining the human health and welfare. Clean drinking water is now considered as a fundamental right of human beings. Life on the earth is never imaginable without water. Water is one of the most vital irreplaceable elements of a basic human need. It is being used for many purposes such as irrigation, water supply, industrial, drinking, propagation of fish and other aquatic systems and generation of hydro-power plants.

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HISTOCHEMICAL ANALYSIS OF GASTROINTESTINAL MUCOSUBSTANCES OF FRESH WATER FISH *Mastacembelus armatus* INFECTED BY HELMINTH PARASITE *Circumonco bothrium sp.*

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*Supporting Information

ABSTRACT: Present study was conducted to investigate the histochemical changes induced by Circumonco bothrium sp. in the intestine of freshwater fish Mastacembelus armatus. During present investigations the infection of Circumonco bothrium sp. in Mastacembelus armatus with various histochemical reactions showed localization of localization of carbohydrate, protein, lipid and glycogen. During histochemical study intestine infected by cestodes, the numbers of mucous cells those containing acidic or mixed glycoconjugates were significantly higher than those seen on sections from uninfected fish, which is a protective interaction of the host against parasitic infection. In the current study, a highly significant increase in the number of mucous cells was seen within the infected intestines of Mastacembelus armatus when compared to uninfected counterparts.

Keywords: Circumonco bothrium sp., Histochemical, Intestine, Mastacembelus armatus

RESEARCH ARTICLE

INTRODUCTION

The gastrointestinal system is primarily involved in breaking down food for absorption in to the body. It is essentially a muscular tube lined by a mucous membrane which exhibits regional variations reflecting the changing functions of the system from mouth to anus. The Alimentary canal is an organ which is involved in various important physiological functions. It is the primary site of food digestion (absorption) and nutrient uptake.

According to Srivastava (1975) and Chandra et al. (2011), most of the species of helminths in adult stage live in the alimentary canal these parasites have detrimental effects upon fish in more ways than one. Different parts of the cell are biochemically different, they take up specific stains to varying degrees. Histochemical tests are used in an attempt to identify cell and tissue components by virtue of their specific chemical reactions. The alteration in the state of cell constituent can be studied by using histochemical techniques, these techniques helps to analyze not only the localization of carbohydrate, protein, lipid and glycogen etc. but also molecular changes at cellular level. The noteworthy contributions towards the expansion and development of histochemistry are those of Lillie (1954), McManus (1948), Pearse (1968) and Bancroft and Stevens (1992), Sonune (2014). In 2012, Ghosh and Chakraborti observed the histochemistry of the olfactory rosette of Cyprinus carpio.

The present study includes the Histochemical analysis of gastrointestinal mucosubstances of fresh water fish Mastacembelus armatus infected by helminth parasite Circumonco bothrium sp.

MATERIALS AND METHODS

Preparation of slides for histochemical studies:

For histochemical analysis, small fragments from the anterior, middle and posterior parts of infected intestine were used. The infected intestine and normal were cut into small pieces and were fixed in Bouin's fluid. After 48 hours, washed several times with water, dehydrated in graded series of alcohols, cleared in Cedar wood oil and xylene, blocks were made in cavity blocks by usual method. Thick sections were cut with a rotary microtome at 4- 5 micron thick. After removing the wax by xylene, hydration was carried out, dehydrated, cleared in clove oil and xylene and mounted permanently in Canada balsam. Sections were stained with various histochemical staining methods. Best slides or sections were selected and observed under the microscope for histochemical study. Photographs were taken with digital camera Nikon Coolpix L24.

Methods used for histochemical tests were:

1. Periodic Acid-Schiff (PAS) (McManus, 1948)
2. Alpha-amilase-PAS (McManus, 1948)
3. Alcian blue pH 2.5 (Martoja and Martoja-Pierson, 1970)
4. Alcian blue pH 0.4 (Martoja and Martoja-Pierson, 1970)

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Distribution Of Helminth Parasites In Intestines And Their Seasonal Rate Of Infestation In Freshwater Fishes From Latur District, (M.S.) India

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Abstract

The present study deals with the seasonal prevalence of parasitic helminths in freshwater fishes from Latur District (M. S.) India. The survey was conducted during annual cycle 2012 to 2013 from different sampling station to estimate the seasonal prevalence of parasitic helminths. For this study 876 freshwater fishes were randomly selected. Fish samples were collected from different localities of Latur District, Maharashtra State, namely Ausa, Nilanga, Ahemadpur, Deoni, Jalkot, Renapur, Latur, Shirur-Anantpal, Chakur and Udgir.

The seasonal prevalence percentage of parasitic helminths was highest during summer (29.45%), followed by winter (20.00%) and lowest during rainy (9.89%). There was considerable difference found in the seasonal prevalence. The present study is concentrated only on the prevalence of cestode and nematode. The major helminths parasites were found in the fishes include Senga spp., Procamallanus sp., Circumoncobothrium sp. and Gangesia sp. The results of the parasitic helminth are discussed in relation to seasonal variation and found highest during summer followed by rainy and lowest during winter season.

Keywords: *Survey, Freshwater fishes, Gastrointestinal helminths, Seasonal prevalence*

Introduction

India is the mega biodiversity country in the world. Fish are the most important inhabitants of the aquatic ecosystem mainly marine and fresh water and provides the human population cheap and easily digestible proteins. In India it is estimated that about 10 million tons of fishes are required to meet the annual demand of fish proteins as compared to an actual annual production of only 3.5 million tons (Shukla and Upadhyay, 1998). The major component of fish is protein. Fish proteins have a high biological value. It also contains variable quantities of calcium, phosphate, fat and other nutrient important for human health and growth. Fish provides the world's prime source of high quality protein, 14-16% of the animal protein consumed worldwide; over one billion people consume fish as their primary source of animal protein.

Recent studies indicate that of 750 species of freshwater fish species found in India, a large number of them are familiar only to the local population. These species are better known to the rural population due to the importance they attach to these species as a vital and affordable source of nutrition. Intestinal parasitic helminths have a serious impact on fish health, productivity, quality and quantity of meat. Fish parasitic populations are known to differ due to variation in the environment and host population (Dogiel, 1961). Helminth parasites of fishes are commonly divided into three main groups; cestodes, nematodes and trematodes. Kennedy, (1975) stated that population investigation can provide date for the predication of integrated methods to achieve the regulation of numbers of harmful parasites, because it has been stated that a single method of control have little value, where as co-ordicated activities ameliorate the infection.

Material And Method

Examination of fish for collection of parasites:

Examination of intestinal parasites was carried out by using the method described by Hassan *et al.*, (2010). After the separating and counting the population of different helminth parasites from different freshwater fishes the parasites were preserved in separate bottles. Some of these were used for the taxonomic study.

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16. Advance Technologies in Fisheries and Aquaculture

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Abstract

The demand for fish is ever-increasing, particularly as its health benefits continue to gain acclaim with consumers, who, overall, are becoming more interested in the nutritional advantages of their food choices. While the production of fish as a primary protein source is considerably more efficient than other protein sources by as much as six and four times respectively, on a feed conversion basis, much can still be done to improve production and efficiency in aquaculture. Aquaculture must have to move towards intensification to meet the rising demand, to contribute more effectively to the reduction of poverty and malnutrition, and to become ecologically more sustainable. New technologies will make it possible for sustainable aquaculture to become the new global standard. In order to improve the socioeconomic condition of the farmers, this expansion of aquaculture production needs to take place in a sustainable way through the applications of new farming technologies viz. Integrated fish farming, Cage and pen culture, Improved strain, Pellet feeding, FRP hatchery, Monosex culture, Genetically improved strains, Hypophysation Techniques, Eye stalk ablation, Application of Probiotics in Aquaculture, Live Fish Feed Technologies, Biotechnology, Bioremediation, Sea ranching etc.

Keywords: Advanced Technologies, Aquaculture, Fisheries, Inland, Marine

1.0 Introduction

Aquaculture, also known as aqua farming, is believed to have first begun around 4,000 years ago in China with the production of carp and is now the fastest-growing animal food

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"A Geographical Study Of Wildlife Protection In India"

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INTRODUCTION: -

Wildlife is a precious gift of God to this planet. The term 'wildlife' not only caters to wild animals but also takes into account all undomesticated life forms including birds, insects, plants, fungi and even microscopic organisms. For maintaining a healthy ecological balance on this earth, animals, plants and marine species are as important as humans are. Each organism on this earth has a unique place in food chain that helps contribute to the ecosystem in its own special way. However, sadly today, many of the animals and birds are being endangered. The natural habitats of animals and plants are being destroyed for land development and farming by humans. Poaching and hunting of animals for fur, jewellery, meat and leather are other great factors contributing to wildlife extinction. If soon, no stringent steps are taken to save wildlife, it would not be long when they will find a place only on the list of extinct species. In addition, that would not be all, the extinction of wildlife species will certainly have a fatal impact on human race as well. So, for us as humans, it becomes a great responsibility to save the wildlife, our planet and most impoetantly, our own selves.

The goal of wildlife conservation is to ensure that nature will be around for future generations to enjoy and to recognize the importance of wildlife and wilderness for humans and other species alike. That, Wildlife is part of nature that maintains equally distribution of food instead of over use of food by one human

Wildlife traditionally refers to undomesticated animal species but has come to include all organisms that grow or live wind in an area without being introduced by human

A wild animal is an animal that is well wild. This means that it isn't and it lives an its own without any help from people. A wild animal finds it own food shelter, water and all its other needs in a specific natural habitat.

MEANING OF WILDLIF: -

The wild a domesticated animals living in their natural habitats like forest, Grasslands, deserts etc. are usually called wildlife.

However scientifically wildlife includes both the naturally occruing animals as well as the plans

DEFINITION OF WILDLIFE PROTECTION: -

An area land and sea especially dedicated to the protection. An maintaince of biological diversity a natural an associated cultural, resources and managed through legal or other effective means

THE WILDLIFE PROTECTION ACT: -

The wildlife protection ACT 1972 is an Act of the Parliament of India enacted for protection of Plants and animal species before 1972. India only had 5 designated National Parts

Among there reforms the act established schedules of Protected animals and plants. Species hunting or harvesting these species was largely outlawed.

The act provides for the protection of wild animals, birds, plants for matters connected therewith or ancillary or incidental there to

WILD LIFE PROTECTED AREA IN INDIA

National Parlc -

These areas are given the highest degree of protection with virtually no human activity barring passage management work and tourism being allowed by law. WLPA (world life protection act)

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09

Synthesis and Characterization of ZnS thin film by Spray Pyrolysis Technique

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Abstract:

Thin films of ZnS were prepared by spray pyrolysis. The effect of substrate temperatureon Structural, Morphological andElectrical properties of ZnS thin film were studied. From the X-ray diffraction pattern at substrate temperatures in the ranges from 425°C-500°C with difference of 25°C whichshows a good crystallinity is obtained with cubic crystal structure. From surface morphology of ZnS thin film prepared at a substrate temperature 500°C is relativelymore homogeneous,good stoichio metry, a smooth surface.It was found from electrical properties the electrical resistivity (ñ) of the given ZnS film at substrate temperatures 425°C is 5.58 × 10^{6} Ù-cm, 450°C is4.4×10^{6} Ù-cm, 475°C is 4.06×10^{6}Ù-cm, and 500°C is 2.4×10^{6} Ù-cm.

Keywords: Spray pyrolysis, structural properties, Morphological properties & electrical properties.

1. Introduction:

ZnS thin film material used for various application devices in solar cell. It wasalso used in LED for blue to ultra violet spectral region due to its wide band gap 3.6-3.7ev at room temperature. ZnS thin films are extensively used in industry for various purposes such as filter, reflected film, dielectric film and photoelectric cellwith adequate properties [1].

ZnS thin films have been prepared by a variety of techniques, such as molecular beam epitaxy[2], chemical bath deposition [3], thermal evaporation [4]and RF reactive sputtering [5] etc. The technique of spray pyrolysis also offers interesting possibilities for preparing ZnS thin films. Indeed, this technique for the preparation of thin films is very attractive because it is inexpensive, simple and capable of depositing optically smooth, uniform and homogeneous layers. Furthermore, because this simple coating technique involves processing in an ambient atmosphere, it is easy to incorporate it into an industrial production line [6]. With spray pyrolysis, the solution is sprayed directly onto the substrate. A stream of gas (compressed air) is used for atomization of the solution through the nozzle. The main factors in determining the final physical and chemical properties of the films are the initial solution, the nozzle pressure, and the substrate temperature, among other parameters [7].

H.H. Afifi [1] et.al studied structural properties of ZnS thin film, he was found that a cubic phase structure prepared by spray pyrolysis.Evren Turan [6] studied structural, optical and electrical properties, from that study he found crystalized in a wurtzite structure, a direct band gap energy of 3.62 eV and values of the electrical conductivity and carrier concentration were about 3x10^{-10}Ù$^{-1}$ cm^{-3} and 1x10^{7} cm^{-3}, respectively.B. Elidrissi[7] et.al studied structural, compositional and optical properties and he found that films of ZnS with mixture of hexagonal and cubic phases have been prepared by the spray pyrolysis method, found that relatively good film crystallinity was obtained at substrate temperature of 500°C deposition time of 35 min and spray rate of 5ml min^{-1} and these films are also nearly stoichio

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RESEARCH ARTICLE OPEN ACCESS

Study of Ethanol sensing properties of spray deposited CdO thin films

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ABSTRACT

The objective of this work is to study the influence of deposition temperature on morphological and ethanol sensing properties of the CdO thin films prepared by spray pyrolysis technique. These films were characterized for morphological by means of scanning electron microscopy (SEM). As deposited CdO films are polycrystalline with (111) preferential orientation. The relationship between the surface morphology and the sensing properties to ethanol sensing properties of the CdO thin films is newly established. The CdO films exhibited the maximum response of 21% at 300 °C upon exposure to 0.2 vol.% LPG.

Key words: CdO films, LPG, spray pyrolysis technique.

INTRODUCTION

Metal oxides possess a broad range of electrical, chemical and physical properties that are often highly sensitive to changes in their chemical environment. Because of these properties, metal oxides have been widely studied, and most commercial sensors are based on appropriately structured and doped oxides [1]. Among the metal oxides, wide band gap semiconducting oxides such as SnO_2, ZnO and In_2O_3 have been extensively studied. Other well known sensors include Fe_2O_3 [2], WO_3 [3], CuO-BaTiO$_3$ [4-6].

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Structural, Morphological and Electrical Properties of chemical bath deposited $Cd_{1-x}Zn_xS$ Thin Films

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Abstract—$Cd_{1-x}Zn_xS$ ($0 \leq x \leq 1$) thin films with different compositions have been deposited on amorphous glass substrates by the chemical bath deposition technique. The composition Structural, Optical, Morphological and Electrical Properties were studied. The structural properties of as deposited films were studied by using X-ray diffraction technique. XRD studies reveal that the films are crystalline with cubic and hexagonal structure. Calculated lattice parameter shows good agreement with JCPDS data card. It is observed that grain size increasing with increased Zn up to $x = 0.4$. Further, it decreases with increasing Zn. The band gap of the thin films varied from 2.43 to 3.50 eV as composition varied from x=0 to x=1. It was observed that changes in the small amount of Zn result in marked changes in the optical band gap of CdS. The electrical conductivity decreases with rising Zn content and rising with temperature. An effort has also been made to obtain activation energy of these films which rise with rising Zn attention in CdS.

Keywords: *Thin film, $Cd_{1-x}Zn_xS(0 \leq x \leq 1)$, CBD method, Structural properties, optical properties, morphological properties, electrical properties.*

I. Introduction

In the present situation, petroleum products are insufficient to meet the vitality necessities of the world. What's more, consuming non-renewable energy sources has another hindering impact of discharge of ozone-harming substances driving to global warming. Elective renewable vitality sources, for example, sun power, wind power can be used to beat the vitality deficiency. Analysts are taking a shot at various innovations to tackle these renewable resources in a proficient way since the establishment of photovoltaic (PV) modules will give vitality less carbon footprint [1]. For a long time, silicon-based sun oriented cells dominated the market and with an increase in assembling capabilities, thin film PV cells are picking up significance [2]. Real deposition techniques, for example, sputtering[3], Metal Organic Chemical Vapor Deposition (MOCVD) [4], e-beam cooperation (5), chemical bath deposition (CBD) [6], have been attempted to produce thin film PV.

The chemical bath deposition (CBD) technique is right now drawing in considerable regard for the analyst as it doesn't require costly instrumentation like vacuum system and other costly hardware [5]. The transformation of sun energy into a usable shape is a plausible test to the researcher.

Group II-VI semiconductor thin films have attracted substantial attention because of their broad range of use in the fabrication of solar cells and other optoelectronic devices[7]. Group II-VI semiconductor compound they by and large display extensive band gaps, making them prominent for short wavelength applications in optoelectronics [8].

II-VI compounds can formed ternary and quaternary compounds with an immediate primary band gap assignment over the whole amalgam creation go and with high absorption coefficients control.. CdZnS ternary thin film has been broadly utilized as a great bandgap window material in hetero intersection sun oriented cells and photoconductive gadgets [9]. CdS and ZnS frame a persistent arrangement of strong arrangements, Cd Zn S. The band-gap vitality of $Cd1-xZnxS$ can be controlled in the scope of the parallel band gap. Additionally, in heterojunction solar cells utilizing CdTe, CuInSe , and CuGaSe , the utilization of CdZnS rather than CdS can prompt an expansion in photocurrent by giving a match in the electron affinities of the two materials[11]. In order to diminish the imperfection density, the optical and electrical properties of CdS must be improved which can be accomplished through doping. It has been accounted for before that when CdS is doped with certain cationic impurities, for example, Al,Ga, Mn, Zn, Cu, In and with certain anionic contaminations, for example, F, Cl, B and so on., its optoelectronic properties might be improved.[10]. Films deposited by CBD technique are by and large polycrystalline in structure and their properties are impacted by the deposition procedure. [7].

In our present work, cadmium acetate, zinc acetate and thiourea mixture have been used as source materials to make thin films of $Cd_{1-x}Zn_xS$ with different composition ($x = 0.0-1.0$) using chemical bath deposition technique. In our previous work, we reported that Zn doping can improve the structural and optical properties of pure CdS which refered in reference no.[7]

The growth, structural, optical, electrical and morphological properties of these films in relation to composition 'x' are reported and discussed. Also discussed the relation between energy band gap(eV) and composition parameter(X). And discussed relation in between Grain size and composition.

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Original Research Paper

Structural and optical properties of $Cd_{(1-x)}Zn_xS(x=1)$/Zns thin film using chemical bath deposition technique

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ABSTRACT

$Cd_{(1-x)}Zn_xS$ (x=1)/ Zns thin films were deposited by the chemical bath deposition technique. Depositions were done on cleaned glass substrates. The composition, structural properties of deposited thin films was studied using X-ray diffraction technique. XRD studies reveal that the films are crystalline with hexagonal structure. Calculated lattice parameter shows good agreement of jcpds data card. It is observed that grain size of ZnS thin film is 18 nm. The band gap of the Zns thin films 3.50 eV as composition x = 1.

Keywords: *ZnS, Thin films, CBD technique, Optical Properties, Structure Properties*

Zinc sulfide (ZnS) is an important II–VI semiconducting fabric with a wide direct band gap of 3.65 eV in the bulk [1-5]. This class of new resources has not only provided many unique opportunities but also exhibited novel optical and convey properties, which are potentially useful for technological applications It has potential applications in optoelectronic devices such as blue light emitting diodes, electroluminescent devices and photovoltaic cells [1,4] and more recently as *n*-type window layer heterojunction solar cells. Zinc sulfide has found wide use as a thin film coating in the optical and microelectronic industries. Introduction Types II–VI semiconductors used as materials in light emit-ters of a range of wavelengths from the visible to the infra-red spectrum as well as in photo acceptance units [3-5]. Group II–VI semiconductor thin films have attracted considerable attention from the research community because of their wide use in the fabrication of solar cells and other optoelectronic devices [6-8].In recent years, ZnS thin films have been grown by a variety of deposition techniques, such as chemical bath deposition, evaporation, and solvothermal method Chemical bath deposition is promising because of its low cost, arbitrary substrate shapes, simplicity, and capability of large area training. CBD method is used to prepare the optimal ZnS buffer layer for CIGS solar cell, which shows a high transmittance in the visible region and very uniform below 100 nm thick. And the good hetrointerfaces of the Al:ZnO/ZnO/ZnS and ZnS/CIGS/FTO structure of CIGS solar cell formed by wet processes were observed [9-12].

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SYNTHESIS, CHARACTERIZATION AND ANTIMICROBIAL PROPERTIES OF NOVEL ISOXAZOLINE

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ABSTRACT

Chalcones were synthesized by the condensation product of acetophenone in combination with aromatic aldehydes in presence of strong base. It was found that the synthesized chalcones were having prominent role in modern coordination chemistry. The chalcone synthesized by base catalyzed condensation of 3-acetyl-6-methyl-2H-pyran-2,4-(3H) dione (DHA) with different aromatic aldehyde. These chalcones were used for synthesis of derivatives i.e. isoxazoline. The synthesized compounds were characterized by IR, ^{1}HNMR and mass spectral analysis. The derivatives were further used for the estimation of its biological properties. It was found that the derivative possesses efficient antimicrobial properties. From the study it was found that the synthesized compounds are efficient for further research work.

KEYWORDS: Dehydroacetic acid (DHA), Chalcone, 3-cinnamoyl-4-hydroxy-6-methyl-2-pyrones, IR, ^{1}HNMR, Antibacterial activity, Antifungal activity, Isoxazoline.

INTRODUCTION

Chalcones are the special ligand molecules that used for the synthesis of complexes with desired properties. The complexes are having variations in physical, chemical and biological properties. The existence of the α, β-unsaturated ketone moiety in chalcones is a common part found in a large number of biological active compounds[1]. Therefore, chalcone derivatives from nature or synthetic origin exhibit diverse pharmacological activities, such as antimicrobial[2], antitumor[3], anticancer[4], radical scavenger[5] and inhibitor of topoisomerase I[6].

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Histology And Mucin Histochemistry Of The Gastrointestinal Region Of Freshwater Fish *Mastacembelus Armatus*

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ABSTRACT:

Present study was conducted to investigate the histology and characteristics of mucins secreted by epithelial mucous cells of the digestive tract in the intestine of freshwater fish *Mastacembelus armatus* were investigated using light microscope. During histochemical study intestine the digestive tract was divided into a pharynx, oesophagus, J-shaped stomach (with a cardiac, fundic and pyloric part) and intestine, composed of anterior intestine, middle intestine and posterior intestine, which consisted of a mucosa (epithelial layer), lamina propria-submucosa, muscularis and serosa. A large number of isolated longitudinal striated muscular bundles were present in the lamina propria-submucosa of pharynx. Goblet cells were observed throughout the digestive tract, except in the stomach. The epithelial mucous cells contained neutral or other two mixtures of acid and neutral mucins, the first being the most common. The neutral mucin was the only type of mucins in the stomach, anterior intestine and middle intestine. The results of this study will be helpful for understanding the digestive physiology and diagnosing some gastrointestinal diseases in *Mastacembelus armatus*.

Keywords: Histochemical, Intestine, Mastacembelus armatus

INTRODUCTION

The histology of fish digestive tract has been described for numerous species. Generally, the basic histological structures are similar: wall of the digestive tract of many fish is composed of mucosa, submucosa, muscularis and serosa (Diaz *et al.*, 2006). Results in previous studies have indicated that some small differences of histological structures among fish digestive tracts are related to feeding habits, food, age, body shape and weight (Gordon and Hecht,2002). Most of the earlier researchers have reported*Mastacembelus armatus* as a carnivorous fish except Mookerjee et al.*(1947)* who have documented its herbivorous feeding habit. Khan (1934) has reported its preference for eggs and fry of other fishes. Serajuddin and Mustafa (1994) have documented insects, shrimps and fish, as the mostly preferred food items for this fish species.

Along with the general histological structures of digestive tract, mucin histochemistry of digestive tract has also been studied in different fish species. The mucin layer of wall of digestive tract has various functions, such as lubrication, digestion,absorption, control infectious diseases and colonization of the harmful or opportunistic micro-organisms.

MATERIALS AND METHODS

Preparation of slides for histochemical studies: For histochemical analysis, small fragments from the anterior, middle and posterior parts of infected intestine were used. The infected intestine and normal were cut into small pieces and were fixed in Bouin's fluid. After 48 hours, washed several times with water, dehydrated in graded series of alcohols,

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RESEARCH ARTICLE
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Preparation of MnS thin films by chemical bath deposition and effect of bath temperature on their optical propertie

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ABSTRACT
MnS thin films were deposited onto glass substrates by chemical bath deposition at different temperatures (40°C and 70°C). The deposition parameters such as deposition time, pH and concentrations of solution were optimized. The films were prepared from the mixture of the solution of manganese acetate tetrahydrate as a manganese ion source, thiourea as a sulphur ion source and triethanolamine (TEA) as a complexing agent. The MnS thin films were characterized by optical absorption spectroscopy and band gap energy were determined. The band gap energy is found to be in the range of 2.81-3.3eV.

Keywords: Optical properties, CBD method, Band gap, Thin films, Chemical synthesis.

INTRODUCTION

During the past few decades manganese chalcogenides (MnS, MnSe, MnTe etc.) have given much interest concerning their structural, chemical and physical properties [1-3]. Depending upon the deposition conditions, the structural, electrical and optical properties of these materials can be controlled in many ways [4]. The deposition of DMS materials as the thin films form has been the subject of intense research over the past few decades due to application in a variety of fields such as photoconductors, solar selective coatings, solar cells, antireflection coatings and optical mass

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DIAGNOSIS OF DISEASES USING DIFFERENT APPROACHES TO IMPROVE PRODUCTIVITY.

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Abstract:

Important agricultural crops are threatened by a wide variety of plant diseases and pests. These can damage crops, lower fruit and vegetable quality and wipe out entire harvests losses. About 42% of the world's total agricultural crop is destroyed yearly because of attack of multiples of diseases and pests. Farmers often must contend with more than one pest or disease and new pesticide-resistant pathogenic strains attacking the same crop.

However, crop losses can be minimized, and specific treatments can be tailored to combat specific pathogens if plant diseases are correctly diagnosed and identified early. These need-based treatments also translate to economic and environmental gains. So, in this article the available disease diagnosis methods were mentioned and concluded how early diagnosis not only helps in the management of disease but also contribute to the increased productivity.

So the present work was designed to standardize the diagnosis methods for a devasting citrus disease i.e. *Phytophthora*.

Key words: Molecular, Immunological, ELISA, PCR

Introduction

The traditional method of identifying plant pathogens is through visual examination. This is often possible only after major damage has already been done to the crop, so treatments will be of limited or no use. To save plants from irreparable damage by pathogens, farmers have to be able to identify an infection even before it becomes visible. Sometimes because of psudo nature of pathogen or pest there are chances of having wrong diagnosis and it leads to loss of money on inappropriate management practices.

Advances in molecular biology, plant pathology, and biotechnology have made the development of such kits possible. These kits are designed to detect plant diseases early, either by identifying the presence of the pathogen in the plant (by testing for the presence of pathogen DNA) or the molecules (proteins) produced by either the pathogen or the plant during infection. These techniques require minimal processing time and are more accurate in identifying pathogens. And while some require laboratory equipment and training, other procedures can be performed on site by a person with no special training.

So far, diagnostic kits have been designed to detect diseases in crops such as rice, potatoes, papaya, tomatoes, and banana. Similar kits are also increasingly important for identifying genetically modified organisms (GMOs) in shipments of conventional crops.

DNA-Based Diagnostic Kits

DNA diagnostic kits are based on the ability of single stranded nucleic acids to bind to other single stranded nucleic acids that are complementary in sequence means hybridization property.

The tool used in DNA diagnostic kits is the Polymerase Chain Reaction (PCR). There are 3 steps involved in PCR. The DNA is first unwound, and its strands separated by high temperatures. As the temperature is lowered, short, single-stranded DNA sequences called primers are free to bind to the DNA

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Existence of Locally Attractive Solutions for a Fractional Order Nonlinear Quadratic Differential Equation

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Abstract: In this Paper, we discuss the existence the Solution for Fractional Order Nonlinear Quadratic Differential Equation with Initial Value Condition in Banach Algebras. Moreover; we show that solutions of this equation are locally attractive. Our main tool is a Fixed Point Theorem. The existence theorems for extremal Solutions are also proved under Certain Monotonicity Conditions. Our results are illustrated by an example.

Keywords: Fractional Order Quadratic Differential Equation, Fixed Point Theorem, Locally Attractive and Extremal Solutions, Banach Space.

AMS Subject Classification: 34K10, 34A12, 46B50.

1. Introduction:

Fractional differential equations arise in many engineering and scientific disciplines as the mathematical modelling of systems and processes in the fields of physics, chemistry, aerodynamics, electrodynamics of complex medium etc. involves derivatives of fractional order [1,5,10]. Recently, many authors have studied fractional Order differential equations from two aspects, one is the theoretical aspects of existence and uniqueness of solutions, the other is the analytic and numerical methods for finding solutions. Fractional differential equations also serve as an excellent tool for the description of hereditary properties of various materials and processes. In consequence, the subject of fractional differential equations is gaining more and more attention. For some recent development on the topic, see [7, 11] and the references therein.

We consider the following Fractional Order Nonlinear Quadratic Differential Equation (FNQDE) with Initial Conditions:

$$\left.\begin{aligned} \mathfrak{D}^{\xi}\left[\frac{x(t)}{f(t,x(t))}\right] + \lambda\left[\frac{x(t)}{f(t,x(t))}\right] &= g(t,x(t)), t \in \mathbb{R}_+ \\ x(t_0) &= x_0 \in \mathbb{R} \\ f(t_0,x(t_0)) &= f(t_0,x_0) \in \mathbb{R} \end{aligned}\right\} \quad (1.1)$$

for $\lambda > 0 \in \mathbb{R}, \xi \in (0,1)$s

where $f: \mathbb{R}_+ \times \mathbb{R} \to \mathbb{R} - \{0\}$ and $g: \mathbb{R}_+ \times \mathbb{R} \to \mathbb{R}$ are continuous functions.

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DAMA

POPULATION DYNAMICS OF HELMINTH PARASITE *GANGESIA SP.* IN FRESHWATER FISH *WALLAGO ATTU* FROM LATUR DISTRICT (MS) INDIA

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ABSTRACT
The present study deals with the Population dynamics of helminth Parasite *Procamallanus sp.* sp. in freshwater fish *Mastacembelus armatus* from Latur District (MS) India. The survey was conducted during, annual cycles 2011 to 2013 from different sampling station to estimate the Population dynamics. For this study 368 freshwater fish *Mastacembelus armatus* selected. Fish samples were collected from different localities of Latur District, Maharashtra State, namely Ausa, Nilanga, Ahemadpur, Deoni, Jalkot, Renapur, Latur, Shirur-Anantpal, Chakur and Udgir. The population dynamics shows the prevalence, mean intensity, abundance and dominance of the collected cestode *Procamallanus sp.* sp.

KEYWORDS: *Circumuncobothrium* sp., *Mastacembelus armatus*, Population dynamics, Freshwater fish,

INTRODUCTION

India is the mega biodiversity country in the world. Fish are the most important inhabitants of the aquatic ecosystem mainly marine and fresh water and provides the human population cheap and easily digestible proteins. In India it is estimated that about 10 million tons of fishes are required to meet the annual demand of fish proteins as compared to an actual annual production of only 3.5 million tons (Shukla and Upadhyay, 1998). The major component of fish is protein. Fish proteins have a high biological value. It also contains variable quantities of calcium, phosphate, fat and other nutrient important for human health and growth. Fish provides the world's prime source of high quality protein, 14-16% of the animal protein consumed worldwide; over one billion people consume fish as their primary source of animal protein.

Recent studies indicate that of 750 species of freshwater fish species found in India, a large number of them are familiar only to the local population. Intestinal parasitic helminths have a serious impact on fish health, productivity, quality and quantity of meat. Fish parasitic populations are known to differ due to variation in the environment and host population (Dogiel, 1961). Helminth parasites of fishes are commonly divided into three main groups; cestodes, nematodes and trematodes. Kennedy, (1975) stated that population investigation can provide date for the predication of integrated methods to achieve the regulation of numbers of harmful parasites, because it has been stated that a single method of control have little value, where as co-ordinated activities ameliorate the infection.

MATERIAL AND METHOD

Examination of fish for collection of parasites:
Examination of intestinal parasites was carried out by using the method described by Hassan *et al.*, (2010). After the separating and counting the population of different helminth parasites from different freshwater fishes the parasites were preserved in separate bottles. Some of these were used for the taxonomic study.
Statistical analysis employed for the population dynamics studies of helminth Parasites:
The definitions and formulae of prevalence, mean intensity and relative density given by Margolis *et al.*, (1982) and Index of infection given by Tenora and Zojda (1974)

RESULT AND DISCUSSION

The results are shown in Table 1, 2 and Figures 1 and 2.
Infection of *Gangesia* sp. in *Wallago attu* during 2011-12
Average month wise variations in the Prevalence, Mean Intensity and Relative Density of *Gangesia* sp. in *Wallago attu* were as follows;
During observation of population dynamics of *Gangesia sp.* a total 180 fishes of *Wallago attu*, out of which 90 males and 92 females were examined. Among them 21 males and 21 females found infected, resulting in maximum 50.0 %

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ICHTHYOPHTHIRIASIS IN ORNAMENTAL FISHES

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ABSTRACT:- The present work reports on the Ichthyophthiriasis. Goldfish developed only a typical mild clinical signs upon contact with the infected Angel fish. This might raise a concern about the variation of exposure of the two species to the infective agent, theront, in the water, infection dose and the method of infection used in the experimental infection.

KEYWORDS:- Ichthyophthiriasis, Gold fish, Angel fish.

Introduction:- Commonly known as "Ich", the white spot disease (Ichthyophthiriasis), can infect almost all freshwater fish and ornamental fishes.(Ventura and Paperna, 1985)in aquarium fish species it widely spread and cause heavy mortality amount in delicate ornamental fishes. Also it can be detected from at least one species of amphibian (Gleeson, 1999). The disease is recognized as one of the most pathogenic diseases of fish caused by eukaryote parasites resulting in significant economic losses in the affected cultured fish species as well as in aquarium fishes (Matthews, 1994). Ich is caused by a hymenostomatid ciliate, *Ichthyophthirius multifiliis* [Fouquet, 1876]. The parasite is commonly distributed, occurring in tropical, subtropical and temperate regions, and extending north to the Arctic Circle (Matthews, 1994). It causes severe epizootics among different fish species in aquaria, hatcheries, and ponds, as well as in wild fish populations (Ezz El-Dien *et al.*, 1998; Thilakaratne, *et al.*, 2003; Kim *et al.*, 2002).

Materials and Methods:- A total of 20 fish; 5 angel fish (*pterophyllum scalare*).5 oskar(*Astronatus ocellatus*)-and 10-Goldfish (*Carrasius auratus*) were collected from the different aquariums from Latur district. Two days later, Angel fish (*Pterophyllum scalare*) started showing itching behaviors, hemorrhagic patches, fin rot, fish have clamped fins and white spots all over the fish body. 5 of the angel fish died after10 days after eruption of the clinical