

# BAJIRAOJI KARANJEKAR COLLEGE OF PHARMACY

Nagzira Road, Sakoli, District: Bhandara (Maharashtra) 441802.

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E-mail: bkcpsakoli2003@gmail.com, We

Web Site: www.bkcp.in

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Date:

Report On

Online Faculty Development Program
On

"Analytical Method Development"
Date: 6<sup>th</sup> to 11<sup>th</sup> September 2021
Sponsored By

AICTE & ATAL Academy, New Delhi

Organized By
Bajiraoji Karanjekar College of Pharmacy, Sakoli, Maharashtra

#### Introduction:-

One of the most successful ventures of the Wainganga Bahu-Uddeshiya Vikas Sanstha, Bajiraoji Karanjekar College of Pharmacy, Sakoli has established itself as a premier educational institute offering Degree and Diploma level courses in Pharmacy with NBA Accreditated by AICTE, New Delhi. The college takes pride in being of the forefront in guiding, admitting and training aspiring students and shaping their career in Pharmacy profession. Our Institute is giving opportunity to the faculty members to improve their academic skills with expertise in handling various analytical instruments. In this area, our Institute has started conducting the activity of teaching the Pharmacy Professionals by starting the first structured Faculty Development Program (sponsored by AICTE & ATAL Academy). It is now an ongoing and the most common form of our activity in the teaching profession. Today the profession of teaching has become quite challenging because of the latest technological developments and Covid-19 pandemic situation. The trend in the teaching profession is in changing scenario and the teachers are expected to be more effective in teaching, evaluating and research in the field of Pharmaceutical Sciences.

Being a teacher is not just about communicating knowledge, it is about making sure that the students truly integrate this knowledge and derive learning out of it. Any teaching that does not result in effective learning is useless. Therefore, to be an effective teacher, one needs to be able to deliver the domain of knowledge using the most suitable pedagogical tools. An effective teacher is also required to remain at frontiers of knowledge in his / her areas of subject expertise and gain working knowledge of other domains. Hence the periodical faculty development program for the teachers is in high need, to continuously upgrade his / her in teaching and research.

Therefore, the present Faculty Development Program (FDP) is initiated and aimed to a spieka the teaching and research skills of the faculties from college / institute / university on

following objectives;



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## Objectives of the Faculty Development Program:-

- Method validation and result analysis of various Pharmaceutical Dosage Forms and Formulations.
- General problems, their solutions and precautionary measures during handling of instruments such as, IR, Mass, NMR, GC, HPLC, HPTLC, etc.
- To understand the critical process parameters and to minimize their influence on results.
- Participants understand the latest updates in the respective discipline for their professional and learning endeavors.

The program was attended by 200 participants from all over India. Attendees included UG students, PG students, Research scholars and Academicians from varied background of different State Universities. While designing the structure of the program it was kept in mind that there are going to be people from different background in the field of Pharmaceutical Technology that's why emphasis was given not pertaining to one single field so that maximum can be benefitted out of it by organizing such AICTE and ATAL academy sponsored FDP program.



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### Wainganga Bahu-Uddeshiya Vikas Sanstha, Nagpur's

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# Day 1 (Monday – 6<sup>th</sup> September 2021) Inaugural Function

The programme have started, where Prof. (Dr.) P. S. Raghu, Principal Bajiraoji Karanjekar College of Pharmacy in his welcome address welcomed Chief Guest Asst. Prof. (Dr.) K Varalakshmi Devi, Sri Krishnadevaraya University, Anantpur, Andhra Pradesh. In her address said that learning is a continuous process and explained the process of learning in analytical method development. She also said to search for new things in instrument handling in analytical method development

### **First Session**

Prof. (Dr.) V. Murugan (Principal, College of Pharmaceutical Sciences, Dayanand Sagar University, Bengaluru, Karnataka)

Topic: Perspective on Method Development and Validation

During his interaction Dr. V. Murugan discussed about objectives of method development and different parameters in validation. He explained the concept of research, scope and relevance in analytical method development in various fields of Pharmaceutical Sciences.

#### **Second Session**

Asso. Prof. (Dr.) S. J. Daharwal (Pt. Ravishankar Shukla University, Raipur, Chhattisgarh)

Topic: Methods of Estimation of Multi-component Formulations

Dr. S. J. Daharwal explained how important analytical method development in multi-component formulations. He explained the topic using instruments like HPLC, HPTLC and UV Spectrophotometer and its instrumentation.

### Third Session

Prof. (Dr.) P. S. Raghu (Principal, Bajiraoji Karanjekar College of Pharmacy, Sakoli, Maharashtra)

Topic: An Overview on Analytical Method Validation

Dr. P. S. Raghu explained importance of method validation and detailed explain validation relevant data in analytical method development including their applications in Pharmaceutical Applysispal

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Day 2 (Wednesday – 8th September 2021)

### **First Session**

Asso. Prof. (Dr.) M. Karunanithi (Sastra Deemed University, Thanjavur, Tamil Nadu)

Topic: Challenges in Quality Control of Herbal Drugs

According to Dr. M. Karunanithi the seminar outcomes were to reflect upon and reconsider the role of skillful handling of instruments in quality control of herbal drugs in Pharmaceutical Formulations. He also explained to evaluate why and how authentic learning and assessment can produce more productive learning in analytical method development in herbal drugs found in plant constituents.

### **Second Session**

Prof. (Dr.) S. N. Meyyanathan (JSS College of Pharmacy, Ooty, Tamil Nadu)

Topic: Quality by Design and its Role in Analytical Method Development

This session started with Dr. S. N. Meyyanathan explaining about design and role of instruments in analytical method development. He also explained difference between classroom learning, online learning and actual practice of instruments in institute and industry. He also explained how lectures and demos important in skillful handling of instruments in analytical method development.

### **Third Session**

Prof. (Dr.) S. P. Wate (Principal, Anurag College of Pharmacy, Warthi, Bhandara, Maharashtra)

Topic: Development of Analytical Method for New Drug Formulations – The Roadmap

Dr. S. P. Wate gave a presentation on the roadmap to design analytical method development, need analysis, content analysis, course outline, objectives, strategies, time wise session plan, implementation and duration of work.



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Day 3 (Thursday - 9th September 2021)

### **First Session**

Prof. (Dr.) Dinesh Chaple (Principal, Priyadarshini J. L. Chaturvedi College of Pharmacy, Nagpur, Maharashtra)

Topic: Analytical Method Development and Validation

Dr. Dinesh Chaple have discussed about experimental learning in analytical method development into practice value of experiments and how to develop hands skill in handling of instruments. He talks about quality research and publications in method development and validation using different techniques such as, HPLC, HPTLC and GC.

### Second Session

Asst. Prof. (Dr.) K Varalakshmi Devi (Sri Krishnadevaraya University, Anantpur, Andhra Pradesh)

Topic: Modern Trends in Analytical Techniques- Enabling Innovations in Pharmaceutical Research

Dr. K Varalakshmi Devi explained about modern trends and innovations in Pharmaceutical Research. She explained how the change takes place in research, teacher directed to self-directed and individual or collaborative work using different techniques in analytical method development and vice versa.

### **Third Session**

Prof. (Dr.) Prashant Ghode (Rajarshi Shahu College of Pharmacy and Research, Tathawade, Pune)

Topic: HPLC Method Validation

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Dr. Prashant Ghode has explained about the principle, elution, instrumentation, separation process and validation parameters of HPLC in analytical method development. He also explained role of

kar HPISC in development of new drug formulations in R&D section.



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Day 4 (Friday – 10<sup>th</sup> September 2021)

### **First Session**

Prof. (Dr.) Evans Coutinho (Bombay College of Pharmacy, Mumbai, Maharashtra)

Topic: Lead Discovery by NMR

Dr. Evans Coutinho explained the important aspects of NMR like principle, objective, procedure, result outcomes, result interpretation with 2 case studies. He also explained about their applications in Pharmaceutical Analysis.

### **Second Session**

Prof. (Dr.) Vijaya Jyothi (Raghavendra Institute of Pharmaceutical Education and Research, Anantapuramu, Andhra Pradesh)

Topic: Isolation of Phytoconstituents by HPTLC

Dr. Vijaya Jyothi explained isolation of Phytoconstituents by HPTLC with their interpretation data. She also emphasized the need of analytical method development in catering the separation of Phytoconstituents from plants.

#### **Third Session**

Prof. (Dr.) P. S. Raghu (Principal, Bajiraoji Karanjekar College of Pharmacy, Sakoli, Maharashtra)

Topic: Liquid Chromatography

Dr. P. S. Raghu explained about research in liquid chromatography – new trends and the way forward. His discussion was on what is liquid chromatography, method, analytical data and comparative study. He also focused on different formulations and various tools used in liquid chromatography and its applications in Pharmaceutical Sciences.

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Day 5 (Saturday - 11th September 2021)

**First Session** 

Prof. & HOD (Dr.) Atul Sayare (Pharmaceutical Quality Assurance, Rajarshi Shahu College of Pharmacy and Research, Tathawade, Pune)

Topic: Interpretation of IR Data - A Step by Step Approach

Dr. Atul Sayare explained about Infra-red Spectrophotometry and reasons for development of IR method. He gave example of research and some evidences. He discussed IR method but focused on questionnaire as a tool to quantify the data. He further discussed interpretation of IR data on different drug molecules as a part of quality control.

### Second Session

Prof. (Dr.) N. Kannappan (Department of Pharmacy, Annamalai University-Tamil Nadu)

Topic: Role of Regulatory Affairs in Drug Discovery and Development

Dr. N. Kannappan explained importance and role of regulatory affairs related to drug development. He also focussed on preclinical and clinical studies of new drug moieties. He also explained the criteria used in how to apply for screening of new drug development. He thoroughly explained regulations of US FDA.

# **Valedictory Ceremony**

At the Valedictory function, welcome address was given by Dr. P. S. Raghu (Principal, Bajiraoji Karanjekar College of Pharmacy, Sakoli, and Maharashtra). Later Dr. Anshuman Borkar (Coordinator of Online Faculty Development Program) presented the report of five days FDP and gave vote of thanks and concluded the session.

Dr. A. A. Borkar Coordinator





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