

Professor Mahendra K. Rout: An Institution

CHILDHOOD

Born in Bhadrak town, Mahendra Kumar Rout was the youngest son of his parents Late Lakshmidhar Rout and Suryamani Devi. His father was an advocate by profession and was a philanthropic person. For some reason, Mahendra was not able to talk till the age of five years and subsequently stammered while talking. This deficiency bestowed him extrasensory powers in the form of memory and innovative ideas. He passed the Matriculation Examination in 1938 with a First Class from Patna University and obtained a prestigious district fellowship. He did his I.Sc. and B.Sc.(Hons.) from Ravenshaw College, which was affiliated with Patna University then. He completed his M.Sc. from Patna university with late Dasarathi Mishra and late Prasanna Kumar Das.

AS A RESEARCHER

Soon after passing M.Sc., he joined Ravenshaw College as a lecturer when Prof. Balabhadra Prasad, a renowned physical Chemist of India, was the Head of the department. In order to inject a research interest into him, Dr. Prasad asked him to work on methods of phosphate separation, and he published a paper on this theme. He was selected to go abroad twice to carry out his doctoral work, but both times he was disqualified at the final stage by the medical board for he was underweight. Subsequently, he started working for his Ph.D. with Prof S. S. Guhasircar in the field of organo-mercurials and obtained Ph.D. degree in 1952 from Utkal University. After receiving Ph.D., Dr. Rout started his own school of research in the midst of many obstacles of various nature. These unfriendly environments created for him made him strong and determined. His first Ph.D. student was H. K. Pujari, who was a very sincere and committed student. They published their first paper in the Journal of American Chemical Society, the most prestigious chemistry journal of the world, as back as in 1953. This feat made him known and brought prestige to the Chemistry Department throughout the country. He obtained his D.Sc. working independently; the examiner was Sir Alexander Todd, the Nobel Laureate. The work was of such high quality that he was exempted from viva-voce on the recommendation of Prof. Todd and others.

Dr. Rout visited USA as a visiting scientist on an International Exchange programme and worked with Prof. Harold J. Conroy within the general supervision of Prof. R. B. Woodward, a giant in Organic Chemistry and a Nobel Laureate. Dr. Rout was the first person in India to have used NMR and Radioactive techniques in structure determination. He did not hesitate to attend classes with undergrads in USA to learn the principles of reaction mechanism, which was an emerging field then. After his return to Odisha, he introduced this subject as a course in M.Sc. for the first time in India.

The Journal of Indian Chemical Society published a special volume on the sixtieth birthday of Dr. Rout by modifying the rule not to publish a special volume unless the scientist is 65 years of age. Prof. H. K. Pujari and Prof. G. B. Behera were the joint editors. Till today he is the only chemist from Odisha to have been honored like this.

He was engaged in multiple fields of research like Organic Synthesis, Cyanine Dyes (one of the three persons in the country), Studies on Oils, Reaction Mechanism, Quantum Chemistry, Polymer Chemistry, and Environmental Chemistry. His research interest was such that he maintained his research lab at Ravenshaw with permission from the Government even when he was the Principal of G. M. College and Khallikote College. He also visited the then USSR and delivered seminar talks at the University of Moscow and other universities.

A TEACHER PAR EXCELLENCE

There are several types of teachers. The best teacher is the person who not only teaches well but also inspires the students. Dr. Rout was of this category. His style of teaching was unique. In the past olden days, the Indian tradition of acquiring knowledge was through questioning and answering. Dr. Rout adopted this procedure; as a result, students were developing the faculty of logical thinking. He was also interested in acquainting the students of recent developments in organic chemistry through seminars and by changing the curriculum. Soon after returning from USA, he introduced a course on the reaction mechanism, which gave logic to many reactions. Immediately after Vitamin B12 was synthesized by Woodward after 12 years of sustained work, a seminar was held, and he gave the talk on this molecule. Similarly, Robinson-Woodward controversy in Ajmaline synthesis and many other syntheses were discussed in the seminar. He would invite scientists of different faculty like Agriculture Chemistry, Biochemistry, Pharmaceutical Chemistry, etc., which enabled the students to develop a broader outlook. He was a valued educator. As a Principal in all the major colleges of Odisha, he never failed to take classes at all levels. Even as the Vice-Chancellor of Utkal University, he continued his teaching at M. Sc. level.

He used to come to the Department at about 10 am and return home at about 9 pm with intermittent breaks for lunch, evening tea, and walking in the field (after 8 pm) with his research group. He had a very sharp memory. He would remember the names of the students in a big class. Therefore the students were afraid of him.

HUMANISM

Prof. Rout was a very kind person. Anybody in difficulty was able to receive help from him. I remember a bright girl student from Balangir approached him for admission since she was a late applicant for M.Sc. Physics. She was a bright student, and he had to talk to the Principal several times and became successful in giving her admission. Any employee could approach him to solve his financial problems temporarily, and he was

ready to help the person. Many a time, when the research students were busy in their experiments, he would order food for all. Occasionally he asks his research students to visit a picture with him, and thus an intimate relationship existed between him and his students. His house, his room, was open to all his students. Many people were approaching him with problems of their family, children irrespective of the course pursued by the student.

AS A PERSON WITH SELF RESPECT

During those days, Ph.D. from abroad was earning six, and an MS from abroad was earning five increments in the Government of Odisha. He was a Ph.D. from Utkal University, and he fought very hard to equalize the status. After a long fight, the degrees were equalized with two increments for Ph.D. only. He was a devoted teacher, a devoted researcher, and a devoted worker. Yet, the Government was not making him a professor, so he pursued and convinced the Government to create a post of second professor in the Department of Chemistry at Ravenshaw College. There are many such instances where the dignity of a teacher was held high. He believed that a teacher is not only to educate the students in a classroom but also to educate society to think about the country and the state.

AS AN EDUCATIONAL ADMINISTRATOR

As the head of the department, he was very particular about the teaching schedule and also about research. The department was open throughout the day and night. The department was vibrating with the pursuit of knowledge. He became Principal of G. M. College, Sambalpur, and organized its Silver Jubilee in which persons of the eminence of 'Simanta Gandhi', Prof. B. D. Nagchoudhury, Member Planning Commission, and many luminaries participated. He then became Principal Khalikote College and became instrumental in handing over the college to the Government. It was an arduous task. As principal of Ravenshaw College, he organized the centenary and made a lot of efforts in bringing out a stamp on this occasion. He visited 100 colleges in the USA in 1977 as a member of a UGC team of six educational administrators of India.

He is the only person to have headed three premiere colleges of Odisha and has left his footprints everywhere. When he was the DPI(HE), the P.S.C. decided to hold a written examination for the post of lecturers for the first and last time. He faced the problem with so much care that no rightful person was harassed. He occupied the chair of Vice-Chancellor of Utkal University and continued to take classes at the M.Sc. level in the university. The University came out from a deficient status to an economically sound status. The fruits of his efforts are visible till now. During his tenure, there was no student problem. He became the Chairman Pollution Control Board and nurtured it like a baby. He was working in all capacity and brought it to a prestigious level. This organization deserves to be named after him. Later the Govt. asked him to chair the Banking Selection Board. He acted like a teacher to encourage, show compassion, and deal with problems with a

positive attitude. Changing the attitude of an erring person instead of punishing him/her was his attitude throughout.

He cannot be described in a little space. Prof. B. Prasad started a legacy of research at Ravenshaw College, Prof. Rout carried forward to a great height. Ravenshaw was internationally known because of the teachers in all disciplines. He has been honored by the love of his students and the people in general throughout the state.

OTHER ANGLES

He was a good tennis player, used to play with his friend P. K. Das in the tennis courts in front of the college building and also took a keen interest in sports. He was a spiritual person too. Without paying Lord Akhandalamani after bathe would not talk to anybody, nor would he eat anything. He was respected by the chemistry fraternity in particular and science faculties in general throughout the country. His passing away at an early age was a great loss to the country. Even when he was ailing, he did not leave his research students halfway and helped them to submit their thesis. This was the MAN.

***Note:** Prof. Mahendra Kumar Rout, a teacher, researcher, academic administrator, social reformer, and philanthropist, will be forever remembered. He touched and transformed so many lives. Anyone who came across Prof. Rout has a story to tell about the unassuming, humble, charismatic, and mesmerizing person he was. Describing Prof. Rout in black and white is a challenging task. When the Orissa Chemical Society intended to post an article on Prof. Rout, we approached one of his very dear students, Prof. Gopabandhu Behera, Professor of Chemistry (Retd.), Sambalpur University. Reading through the article, the memories of Prof. Rout came alive. It is a perfect tribute of a very successful student to his great teacher. Here is a brief introduction of Prof. Gopabandhu Behera:*



Prof. (Dr.) Gopabandhu Behera was born in the village Mahichala, P.O. Mahichala in the District of Kalahandi, Odisha, on 3rd February 1939. He completed his B.Sc. (Hons.) in Chemistry from Ravenshaw College, Cuttack, standing First Class First in Utkal University in the year 1958. He did his M.Sc. (Chemistry) from Ravenshaw College in the year 1960 with First Class. He obtained his Ph.D. Degree in Chemistry from Utkal University in the year 1969, working under the guidance of Prof. M. K. Rout. He was awarded D.Sc. Degree in Chemistry from Sambalpur University in the year 1978. He was Lecturer in Chemistry at SCS College, Puri from 1960 to 1964; Ravenshaw College, Cuttack, from 1964 to 1969; and Sambalpur University from 1969 to 1971. He was Reader in Chemistry at Sambalpur University from 1971 to 1978 and Professor of Chemistry from 1978 to 1999 for a record period of 21 years. He has published 120 research papers in various National & International Journals. He has published a review article in Chemical Reviews (first time from Odisha), which was widely referred through 300 citations. Fifteen

research scholars have been awarded Ph.D. Degree in Chemistry from Sambalpur University, working under his able supervision. He has visited USA as a Fulbright Scholar in the year 1985, visited the University of Florida in the year 1990, and the University of California in the year 1992. He was a Life Member of Indian Chemical Society; Orissa Chemical Society; Member, Executive Committee of Indian Society of Surface Science and Technology (ISSST), and was also its Vice-President; Member Advisory Committee of Regional Science Museum; Pulp & Paper Research Institute; MAPCOST of Madhya Pradesh, and Basic Science Group of DSTE. He has been bestowed with many awards and accolades, such as the V.S.R. Gupta Teacher of the Year Award in the year 1995 by Orissa Chemical Society; Kalahandi Utsav Samman -1999 and Senior Scientist Award by Orissa Bigyan Academy-2011. He is working relentlessly for the popularization of science and regularly contributes articles in various newspapers and magazines for the same. He has written +2 Chemistry Book and +3 Organic Chemistry Book, which are liked by students. He has also written a Book in Odia entitled “Bigyan O Manabika Mulyabodha”. He was a Member of the Syndicate of Sambalpur University; Member of the UGC Visiting Team. He was WODC Member – Appellate Authority for Air Pollution, and Member, Programme Advisory Committee, Doordarshan, Odisha. After retirement, he is associated with many social activities. He was President of the OCS for the year 1999.

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